# Oil, Paint and Drug Reporter

THE CHEMICAL MARKET AUTHORITY

September 11, 1961



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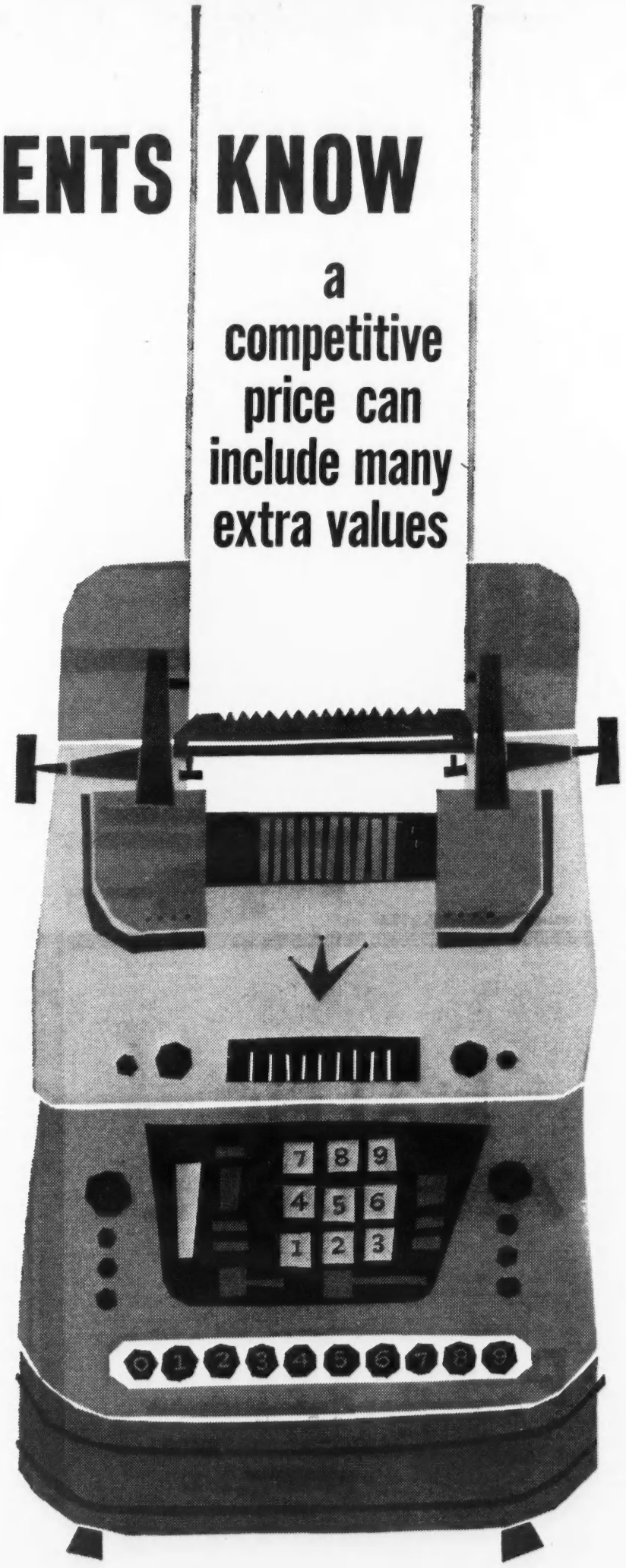
# PURCHASING AGENTS KNOW

## a competitive price can include many extra values

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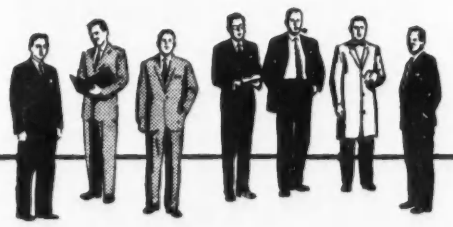

**A PURCHASING AGENT BUYS MANY VALUES TO PLEASE MANY MEN**

**He knows competitive prices are only one consideration—he knows that extra values can save his company money. For example—*speedy deliveries* mean extra savings for his Production Manager. For his Plant Superintendent, consistently high quality means fewer processing variables and trouble-free operation. Which values help the Quality Control Chief? the Chemical Engineer? the Cost Accountant?**

**The Purchasing Agent knows! He's the nerve center—the focal point—the essential Man in the Middle.**

J.T.Baker CHEMICAL

# J. T. Baker Production Chemicals

Oil, Paint and Drug Reporter

Vol. 180 No. 11 30 Church St., New York 7, N. Y. September 11, 1961

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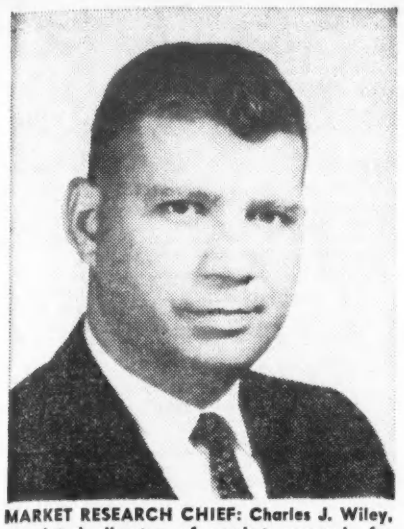

MARKET RESEARCH CHIEF: Charles J. Wiley, appointed director of market research for Amoco Chemicals Corporation, Chicago.

## Cabot Strengthens Pigment-Resin Hand

Cabot Corporation, world's front-running carbon black producer, has moved to strengthen its hand in pigment-resin compounds through acquisition of Acheson Dispersed Pigments Company. Based in Philadelphia, Acheson operates subsidiaries and affiliates in Texas, Ohio and England.

Cabot will acquire the whole package under a purchase agreement signed last week with the parent company, Acheson Industries, Inc., of Port Huron, Mich. Closing date for the transaction has been tentatively set for early in October.

Acheson Industries will retain the facilities and continue the operations of its colloid subsidiaries and division in Port Huron; Plymouth, England, and Scheemda, Holland.

Cabot will operate plants in Philadelphia; Orange, Tex., and Xenia, Ohio, as part of a new division to be known as the Acheson Dispersed Pigments Division of Cabot Corporation.

An additional facility at Dukinfield, England, will be run by a newly established Acheson Dispersed Pigments Divisions of Cabot Carbon, Ltd., Stanlow, Ellesmere Port, Cheshire, England.

Cabot believes its carbon black and pigment know-how "will contribute importantly to strengthening Acheson Dispersed Pigment's already pre-eminent position in the carbon black-thermoplastic resin dispersion field."

"In addition," the company goes on, "this acquisition will make it possible for Cabot to pursue the commercial development of its cross-linkable polyethylene compounds marketed under the name 'CAB-XL' compounds."

## Gov't Wants to Sell Off Its Stockpiled Castor Oil

General Services Administration plans to dispose of 155,676,000 pounds of castor oil in the national stockpile if congress approves. The agency submitted an oil disposal plan for congressional approval last week.

GSA says that the Office of Civil & Defense Mobilization, after a re-examination of stockpile requirements, has decided that the oil is excess to emergency needs.

The agency plans to offer the oil over a period of five years in such quantities so as to avoid disrupting the market of producers, processors and consumers.

World production of castor beans and castor oil averages about 500 million pounds a year, with US consumption running about one-fourth of this total.

# Sen. Kefauver Riding Again, This Time on Chemical Firms Which Submit Identical Bids

A new legislative threat is showing on the horizon to plague chemical and allied-trades firms that engage in the practice of identical bidding. Sen. Estes Kefauver of Tennessee has been giving this matter a great deal of thought in recent months and hopes to hand the Department of Justice—if congress is willing—a new tool that will make it much easier for the government to move against this practice.

The senator's solution for this problem is simple—he merely would transfer the burden of proof that the law is being violated from the shoulders of the government to those of firms which make it a practice of matching their competitors in sealed bid offerings.

**A 'Convincing' Job for the Companies**

It would be up to them to convince the courts that their price offerings were not the result of a conspiracy.

Sen. Kefauver now reveals that he has been "thinking" of a bill along these lines for some time. He made the disclosure during hearings last week before his monopoly committee on several bills designed to sharpen the teeth of the anti-trust laws by emphasizing the individual responsibility of corporation officers for the doings of the corporation.

Further hearings on these bills were abruptly terminated until after the senate adjourns sometime later this month when Minority Leader Everett M. Dirksen of Illinois objected to the Kefauver committee holding hearings while the senate is in session.

Senate rules prohibit the committee from sitting during senate sessions except by unanimous consent. In an effort to wind up its affairs for adjournment, the senate has been meeting early and sitting late.

Sen. Kefauver said that the cancelling of the trust law hearings will not interfere with his plans to hold hearings this week on his drug industry control bill.

These are scheduled for Wednesday (September 13) when Secretary of Health, Education & Welfare Abraham Ribicoff is the witness. Sen. Dirksen, however, has not said whether he will permit the drug bill hearings to proceed.

Sen. Kefauver would apply the burden-of-proof rule to cases in which a company has shown a pattern, over a long time, of submitting identical bids in response to requests for sealed bids.

For some months now, the senator's committee has been studying a tremen-

—Continued on page 50

## Cyanamid of Canada Plan: Broad Spectrum Antibiotics

Cyanamid of Canada, Ltd., says that by August, 1962, it will produce in Canada broad spectrum antibiotics for human consumption.

The company has announced expansion of facilities at its Welland plant, near Niagara Falls, Ont., with expansion involving a $1.5 million investment for antibiotic production in Canada.

The company now imports "Aureomycin" from the US and refines it at its Montreal plant. Next August, it says, "Aueromycin," "Achromycin" and "Declomycin" will be produced at its new facilities.

PICCO EXECUTIVE V. P.: R. W. Ostermayer, jr., named executive vice-president of Pennsylvania Industrial Chemical Corporation, Clairton, Pa.

## Chlorine Electrolysis Via Titanium Anodes?

Titanium anodes for the electrolytic production of chlorine? That's a distinct possibility as the result of a three-way patent arrangement disclosed in London last week.

Imperial Chemical Industries, Ltd., of London is pooling its patents on the development of titanium anodes used in electrochemical processes with those of Magneto-Chemie NV of Shiedam, Holland, and Amalgamated Curacao Patents Company of Curacao, Dutch West Indies.

Electrolytic producers of chlorine, a primary target for the new titanium anodes, are reportedly studying their use. Both types of chlorine cells now in use (diaphragm and mercury) employ graphite anodes. Their cathodes are steel and mercury, respectively.

The new titanium anodes are coated with a thin film of platinum or similar metal. ICI reports that its general chemical division has been experimenting with the new anodes in chlorine cells for over a year.

## Fertilizer Plant in So. Africa

A new fertilizer plant will be erected at Sasolurg, South Africa, by Windmill Fertilizer Company at a cost of 2 million pounds sterling. The facility will use both locally produced and imported phosphates.

# FDA Gets Back $1 Million of Funds Cut by Senate

Food & Drug Administration is getting back part of the funds that had been cut from its budget for 1962 by the senate in a show of wrath against the way FDA planned to enforce the hazardous articles labeling law.

A house-senate conference committee last week agreed to restore $1 million of the $1,580,000 reduction that had been voted by the senate in the agency's new money supply two weeks ago when it passed the annual appropriations bill for the Department of Health, Education & Welfare.

This will allow FDA to operate on a budget of $23 million for the current fiscal year, compared with the $18,948,000 congress allotted to it for fiscal 1961.

The $580,000 reduction from the amount recommended by the White House earlier this year will force the agency to cut back its hiring plans to handle the increased amount of work placed upon it by congress in recent years.

**The Start of FDA's Money Troubles**

FDA's troubles with this year's appropriation began when it tried to place too strict an interpretation on the intent of congress in passing the hazardous articles labeling laws.

What touched off the uprising among the senators was FDA's announced intention to classify turpentine as a poison to be labeled as such with the skull and crossbones insignia.

The vigorous protest of senators from the turpentine states and their congressmen, and the subsequent chastisement of the agency by the senate appropriations committee, brought a quick change in mind by FDA in the handling of the turpentine labeling status.

Final regulations issued several weeks ago (OPD, 8/14/61) dropped the poison label requirement on this product and provided instead that turpentine shall be considered a toxic substance requiring only the single word "Danger" and the statement "Harmful" or "Is Fatal If Swallowed."

The hazardous articles labeling law is due to become fully effective February 1, 1962. It is already in effect for some products that are highly toxic or extremely dangerous.

Because of the short time remaining for industry to get up new labels conforming to the law's requirements, FDA has announced that it will be enough if manufacturers and shippers develop tem-

—Continued on page 54

## Distillers Co. Sells Interest In UK Magnesium Producer

Distillers Company, Ltd., UK whiskey, gin and chemicals combine, has sold its 40 percent interest in Magnesium Elektron to British Aluminum Company.

The sale gives British Aluminum complete control of Magnesium Elektron, which is the only producer of magnesium metal in the United Kingdom.

Magnesium Elektron plans to build a 5,000 ton plant to produce metal of 99.9 percent purity by a thermal process now used by Dominion Magnesium of Canada.

The company notes that more than half of Magnesium Elektron's output now goes into aluminum alloys and for general industrial applications.

### *Manganese Antiknock: A New Gas Additive?*

Addition of a newly-discovered manganese antiknock compound to fuels in the near future is predicted by a Cambridge University chemist reporting on research to the annual meeting of the British association.

Citing world-wide research on organo-metallic compounds, Dr. A. B. Callaer says the new manganese compound is the first case of that metal finding a possible application in fuels.

He suggests the manganese compound might be used in fuels in combination with the traditional tetraethyl lead antiknock compound.

# DuPont-GM: House Unit Paves Way for Tax Relief

Things are beginning to look up again for stockholders of E. I. duPont de Nemours & Co. They may get the long-sought relief, after all, that they have been seeking in the way of a lighter tax on the stock they will have to accept when the big Wilmington, Del., chemical company begins distributing its 63 million shares of General Motors Corporation stock.

The house ways and means committee late last week moved a big step forward in behalf of the stockholders by voting a favorable report on legislation to treat the distribution of the GM stock, for income tax purposes, as a return of capital investment to the duPont stockholders rather than as a stock dividend subject to the regular tax rate.

The bill is expected to be called up on the house floor for passage within a few days, with a good chance of being approved.

The senate finance committee, which has a similar bill on its docket, has been marking time while waiting for some sign of house action on its legislation.

The finance committee can be expected to approve the bill promptly when received from the house.

In testimony before the house committee several weeks ago (OPD, 8/28/61), the administration was only lukewarm to the tax relief bill, but it is thought most likely that the President will sign the bill should it reach his desk.

The Treasury estimates that the bill will yield about $310 million in revenue, mostly from large holders of duPont stock. This compares with about $1 billion of taxes that would be due if the law remains unchanged.

Meanwhile, earlier in the week, duPont filed a divestiture proposal which would

—Continued on page 45

# Tin Is Short But Prices Drop As GSA Offers to Sell Some

Tin may be short on the world markets, but news last week that the United States government is getting ready to sell off 50,000 tons still carried sufficient impact to make prices plummet on the New York and London exchanges, General Services Administration wants to get rid of the excess material—on a piecemeal basis—and despite the immediate disruption in the price structure, dealers welcomed the news because world markets, excluding those of the Iron Curtain countries, are currently anywhere between 20,000 and 30,000 tons short of their requirements.

The announcement in Washington caused prices in New York to go down as much as 3 cents a pound by week's end. Spot in London dropped off £12 to £960 a long ton, while the Singapore market was said to be down "sharply" with selling characterized as "hectic."

**There's Another Repercussion**

Another repercussion from the GSA announcement was the report that a buffer committee of the International Tin Council will meet on September 15 to discuss the establishment of a new buffer stock and also to set minimum and maximum prices.

The pressure is on right now to establish a floor price in sterling which would be about equivalent to the current levels on the New York market.

What GSA is offering is considered a good amount from any point of view, for it represents about two-thirds of a year's annual consumption in manufacturing operations in the United States.

The GSA request was filed with congress under provisions of the stockpiling act of 1946 which prohibits the agency from selling materials accumulated under this law for emergency purposes without first giving congress a chance to veto such sales.

The agency says that if approval is given to the sale, "the tin will be made available in small quantities from time to time, as appropriate, depending on market conditions. The rates and conditions of disposal will be determined by

—Continued on page 45

### *Sun Chemical Sells Off Horn Contracting Unit*

Moving to streamline its A. C. Horn operation, Sun Chemical Corporation last week sold Horn's contracting division for an undisclosed sum of cash to Psaty Brothers, of Long Island City, N.Y.

Formed in 1927, the contracting unit is engaged in the restoration and waterproofing of buildings.

Its unloading, Sun says, will permit greater emphasis on Horn's role in the production and sale of construction and maintenance products.

Horn's traditional line of concrete and mortar additives has been strengthened in recent years by the introduction of new epoxy-based compounds.

## Glidden to Modernize To Tune of $1 Million

Glidden Company is going to put up better than $1 million to expand and modernize four of the company's coatings and resins plants. The expenditure has just been given the okay by the Cleveland, Ohio, company's board of directors.

The appropriations are earmarked for improvements in manufacturing and handling facilities at plants in Atlanta, Ga.; Chicago, Ill.; Toronto, Ont., and St. Louis, Mo.

Glidden points out that the expansion at Atlanta will be the fifth since the plant was acquired in 1954.

In spite of sizable plant expansions in 1955, 1956 and 1959, sales in this fast growing area have again reached a point where present facilities must be expanded, the company says. The new equipment and space contemplated will increase capacity by approximately 25 percent and will be

—Continued on page 68

## Vitamin A Cut Sharply

Hoffmann-LaRoche, Inc., has sharply reduced its price for vitamin A. New base prices, retroactive for thirty days, are 7 cents per million units for liquid forms and 9½ cents per million units for dry forms, down 2½ cents and 3½ cents, respectively. The reductions are said to have been made possible by advanced manufacturing techniques.

## Antibiotics Producers Deny Antitrust Charges in Court

Three chief executives of the country's top antibiotics producers and their companies last week pleaded not guilty in New York Federal District Court to a criminal antitrust indictment charging them with monopoly and price fixing.

The proceeding took less than two minutes. Appearing as defendants were John E. McKeen, president and board chairman of Chas. Pfizer & Co.; Wilbur G. Malcolm, chairman of American Cyanamid Company, and Frederic N. Schwartz, president of Bristol-Myers Company. No date was set for trial.

An investigation of these companies began in April, 1960, under the then Attorney General William P. Rogers. The indictment was returned by a grand jury on August 17.

# *The Week's Price Changes*

**Carnauba Wax, Corn Oil, Peanut Oil, Tallow Advanced. Copra, Cubeb Oil, Tin Metal, Vitamin A Reduced.**

**Prices Advanced**

Carnauba wax, yellow, 1c. to 3c. per lb. (p. 60).
Corn oil, crude, ½c. per lb. (p. 60).
Refd., ½c. per lb. (p. 60).
Peanut oil, crude, ½c. per lb. (p. 60).
Refd., ½c. per lb.
Tallow, edible, ¼c. per lb. (p. 60).
Soybean meal, $4 per ton (p. 60).
Soybean oil, crude, ¼c. per lb. (p. 60).
Refd., ¼c. per lb. (p. 60).
Tin metal, 3c. per lb. (p. 37).
Vitamin A, dry, 3½c. per m. u. (p. 49).
liquid, 2c. per m. u. (p. 49).

**Prices Reduced**

Copra, $2.50 per ton (p. 60).
Cubeb oil, 25c. per lb. (p. 57).
Lemongrass oil, 15c. per lb. (p. 57).
Linseed meal, $1 per ton (p. 60).

**OPD Price Index**

THE OIL, PAINT AND DRUG REPORTER'S relative record of prices of chemicals and related materials is currently as follows:

(100=1949 average)

| Sept. 8, 1961 | Sept. 1, 1961 | Sept. 9, 1960 |
|---|---|---|
| 114.31 | 114.48 | 109.77 |

# Rubber Molecule Cracked Open

Scientists have broken the synthetic rubber molecule wide open and are now ready to re-assemble it to produce whatever kind of rubber the nation needs. In the words of George R. Vila, who announced the news to the American Chemical Society last week, "We have shaken ourselves free from the molecular designs of mother nature and the previously uncontrollable course of synthetic molecular structure. We can now build molecules exactly to the specifications we wish."

Addressing the national ACS meeting in Chicago, Mr. Vila backed up his thesis by reference to three brand new synthetics developed by US Rubber.

Joining him were three company scientists at a joint symposium of the society's rubber and petroleum sections on synthetic elastomers from petroleum hydrocarbons. These research breakthroughs were described:

**Rubber Research Breakthroughs**

- Ethylene-propylene, a promising tire material "because of its low cost and excellent performance."
- Synthetic balata, a new material for use in golf ball covers, submarine cables and possibly electrical wiring.
- A new method for making vinyl-pyridine rubber compounds "that may help improve the wear of tires and possibly conveyor belts."

Ethylene-propylene is said to comprise a highly versatile class of rubbers which

—Continued on page 55

**CHEMICAL OUTPUT CHIEF: Edward N. Heger, named manager of chemical manufacturing at Ansul Chemical Company in Marinette, Wis.**

## Carbide Is Making Glyoxal By Means of a New Process

Union Carbide Chemicals Company, a division of Union Carbide Corporation, New York, has developed a new process for producing glyoxal of higher purity, with low color, and without traces of either ethylene glycol or formaldehyde. To distinguish the new product from other grades, it is identified as "Glyoxal Special."

## Magnesium Oxide Reduced

Morton Chemical Company today (September 11) is reducing prices of its "Elastomag" 100 and 170 powders (rubber grade magnesium oxide) by 3 cents a pound. Micro pelletized material is down 2 cents.

## Nitrogen Fertilizer Facility Will Be Erected in Ireland

The government of Ireland plans to subsidize construction of a $17 million to $22 million nitrogenous fertilizer complex at Arklow, sixty miles south of Dublin.

Pyrites from nearby St. Patrick's copper mine will be used by the new facility, it has been announced, indicating that ammonium suflate will be on the product roster.

If approved by parliament, a report from Ireland states, "the plant would provide a base for several subsidiary industries using chemical byproducts."

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# *Drug Industry Wage Poser*

What is the drug industry paying its workers mostly as a wage minimum?

Secretary of Labor Arthur L. Goldberg is going to make a determination of this fact for the benefit of the other agencies of the government which may be in the market for some of the industry's products.

The determination is to be made by the secretary under provisions of the Walsh-Healey public contracts law which seeks to set a floor on wages paid to production workers in all industries in which the government may have contracts.

The minimum set by the secretary will not necessarily be the lowest wage found to be paid in the industry, but will be what the secretary determines, on the basis of hearings and other information, "prevails" in the industry.

Although prevailing wage minimums have been determined for many other industries—one is due to go into effect shortly for the miscellaneous chemicals industry—this will be the first time that such a determination has been proposed for the drugs and medicines industry.

In the light of the increasing amount of the industry's products being bought by the government as its gets deeper into programs of public health, the determination of the prevailing wage minimum becomes important to drug manufacturers vying for a share of this increasing government business.

Under terms of the Walsh-Healey law, after the prevailing wage minimum has been determined for an industry, contracts in excess of $10,000 can be awarded to a firm in

—*Continued on page 39*

# Petroleum Naphthalene Ranks Swell With Projected Cities Service Plant

The count keeps rising on the nation's petroleum naphthalene producers. Latest to join the throng is Cities Service Company, New York, which is planning to put in 50 million pounds of initial design capacity at its East Chicago, Ind., refinery by the middle of 1962. Cities Service reports that this will be the first petroleum naphthalene manufacturing unit in the midwest, with principal output expected to be contracted for by a "large chemical producer."

**MARKET SURVEYS CHIEF: William E. Houghton, appointed manager of market surveys for General Chemical Division of Allied Chemical Corporation, with headquarters in Morris Township, N. J.**

The trade is today estimating that total output in the nation, after the Cities Service plant is on stream, will amount to 575 million pounds per year in 1963.

Cities Service is falling in right behind Texaco, Inc., which has just announced (OPD, 8/28/61) that it will put up a 100-million-pound-a-year plant at its facility in Port Arthur,, Tex.

**Ashland, Sun, Tidewater-Collier**

Ashland Oil & Refining Company is already on stream at Catlettsburg, Ky., with a 75-million-pound plant and for next year there are two more scheduled: Sun Oil Company's 100-million-pound unit at Toledo, Ohio, and Collier-Tidewater Company's plant of equal capacity at Delaware City, Md.

Collier-Tidewater also has another facility of 100 million pounds capacity scheduled for Los Angeles, but that one has been temporarily held up.

The 1962-63 period should also see the completion of Monsanto Chemical Company's 50-million-pound plant at Chocolate Bayou, La.

When announcing the new petroleum naphthalene plant, Cities Service also reported that it has just placed a 120-million-pound-per-year orthoxylene plant on stream at its refinery in Lake Charles, La. The company uses the orthoxylene to make phthalic anhydride.

# Sodium Chlorate Unit Is Right on Schedule

The new sodium chlorate plant of Penn-Olin Chemical Company at Calvert City, Ky., started operating right on schedule: September 1. The 26,000-ton-per-year unit is reportedly the newest entry in the growing sodium chlorate market.

The completion of the facility makes available a new source of sodium chlorate for pulp and paper processors, particularly in the southeastern states. The plant, Penn-Olin reports, has sufficient

—*Continued on page 68*

# Corn Starch Producers Fight Grant to Viet Nam

Corn starch manufacturers wish the government would take a closer look at the probable effects of foreign aid grants before making such expenditures.

Last week Frank Greenwall, chairman of National Starch & Chemical Corporation, appeared before the senate appropriations committee on behalf of the corn starch industry committee.

He protested an authorization of funds

—*Continued on page 46*

**OPD Reports From Europe**

# Belgian Chemicals: A Goliath Now Aborning Will Command Half That Nation's Production

About half the Belgian chemical industry is soon going to be in the hands of one big, strong—but as yet unnamed—company. And that concern is going to have some very strong friends: Solvay Company, presently the "big boy" of the Belgian plastics industry, and Societe des Usines Chimiques Rhone-Poulenc, an all-powerful and well-diversified French-based concern. Such is the latest news from Europe. Although at week's end the reports were still incomplete, it is learned on good authority that the new Belgian giant will be organized by three large companies.

They are: Societe Industrielle de la Cellulose (Sidac), primarily a plastics processor and film maker; Union Chimique Belge, a chemicals and plastics producer, and Fabelta, SA, a maker of synthetic fibers.

**A 'Broad Range' Firm**

The merger is expected to result in a firm with a broad range in the fields of basic chemicals, fibers, packaging materials and plastics.

And its ties with Solvay and Rhone-Poulenc—which are being described as "very close" ones—are seen making the newly-developing concern a veritable titan on the European scene.

Meanwhile, there is further news from Belgium. The chemical industry there is considering ways of stepping up its share of Europe's plastics output, without at the same time finding itself locked into a general overcapacity situation.

The country's total plastics potential will get a big boost anytime now when Cobenam, a joint venture of Union Carbide Corporation and Societe Chimique des Derives du Petrole (Petrochim) starts up a 15,000-ton yearly polyethylene facility near Antwerp. According to Brussels reports, the initial capacity will be doubled later.

Industry figures show that Cobenam's initial capacity will be about 50 percent higher than Belgium's polyethylene imports last year, which totaled 10,145 tons.

Total Belgian plastic imports were 74,200 tons with exports of about 20,000 tons. Largest exports were cellulose plastics at 5,622 tons in processed form. Exports of polyvinyl chloride were probably also sizable but are classed as confidential.

Total Belgian plastics imports were pin down due to the scarcity of chemical industry figures. A breakdown for 1958 by the Belgian Chemical Industries Federation shows production of 7,000 tons of cellulose-base plastics; 3,000 tons of phenolics; 4,000 tons of urea-formaldehyde and melamine plastics; 4,000 tons of

—*Continued on page 64*

**FIRESTONE EXECUTIVE V. P.: Dr. John Gordon Davoud, named executive vice-president of the Firestone Plastics Company and Firestone Synthetic Fibers Company, both of Pottstown, Pa.**

# Coconut Oil Refineries Using Continuous Process

The world's first commercially successful continuous coconut oil refining process has just been brought on stream at two major refineries—one in Panama and the other in California. The process is also installed at plants in Boonton, N. J., and Wilmington, Del.

So reports Podbielniak, Inc., Chicago-based division of Dresser Industries, Inc., which has engineered the new process.

An unidentified California company reportedly has reduced its oil losses during refining by 40 percent, thanks to the continuous process. Daily capacity of the plant is now six tankcars.

Industrias Panama Boston, SA, was the first to refine coconut oil by the Podbielniak process at its Panama plant. The facility is turning out 30,000 pounds of refined oil daily.

# Rx Insert Rule to Up Cost of Drugs: PMA

The cost of medicine will be going up and the Food & Drug Administration will have to share the blame. Why? Because of FDA's insistence that manufacturers include detailed information on the use of a prescription drug and its dangers in every sales package.

So says that the Pharmaceutical Manufacturers Association in commenting on the new FDA regulation on package inserts, published in the *Federal Register* September 6 (OPD, 9/4/61).

The regulation becomes effective March 5, 1962, and is described by FDA Commissioner George P. Larrick as "needed to promote safety and efficacy in the use of prescription drugs and devices."

"When this requirement becomes fully effective," the commissioner says, "it will make the complete information available to practitioners at every drug store and hospital pharmacy throughout the country.

"Additionally, the industry commonly distributes samples directly to physicians, and the new requirement will call for full information about the drug to accompany these packages as well."

PMA says that it has no complaint about the overall objective of the FDA regula-

—*Continued on page 52*

## *Kefauver Can't Change Prescriptions of Doctors*

Sen. Kefauver and his investigating committee's charges against the nation's drug companies seems to have had no effect on the prescribing habits of the American physician.

Here is what Abbott Laboratories director of market development, David D. Stiles, has to say about the matter:

"A study of the 1960 prescription market shows little change from 1959. Of the 410 most prescribed drugs, 344 were brand name products, three more than in 1959, and sixty-six were generic name products, two less than in 1959."

Mr. Stiles says that the average prescription price increased 1 percent, from an average of $3.21 to $3.25.

# Chemical Reactions of the Future: A Crystal Ball View

What are the chemical reactions of the future?

Gazing deep into his technological crystal ball last week was Kenneth A. Scott of Sun Oil Company, Philadelphia.

And here are a few of the predictions he tossed off for American Chemical Society's chemical marketing and economics division in Chicago:

*Other stories on last week's ACS chemical marketing and economics meeting in Chicago appear on page 7 and in the trade name chemicals report on page 47.*

• Fuel cells will be "economical sources" of large amounts of low-voltage electricity, a breakthrough which will lead to an "enormous growth" in the large-scale use of electrochemical reactions.

• "We are going to see many profitable, large-scale chemicals developed by extrapolation from the aliphatic series to the aromatic, and from monocylic to dicyclic aromatics."

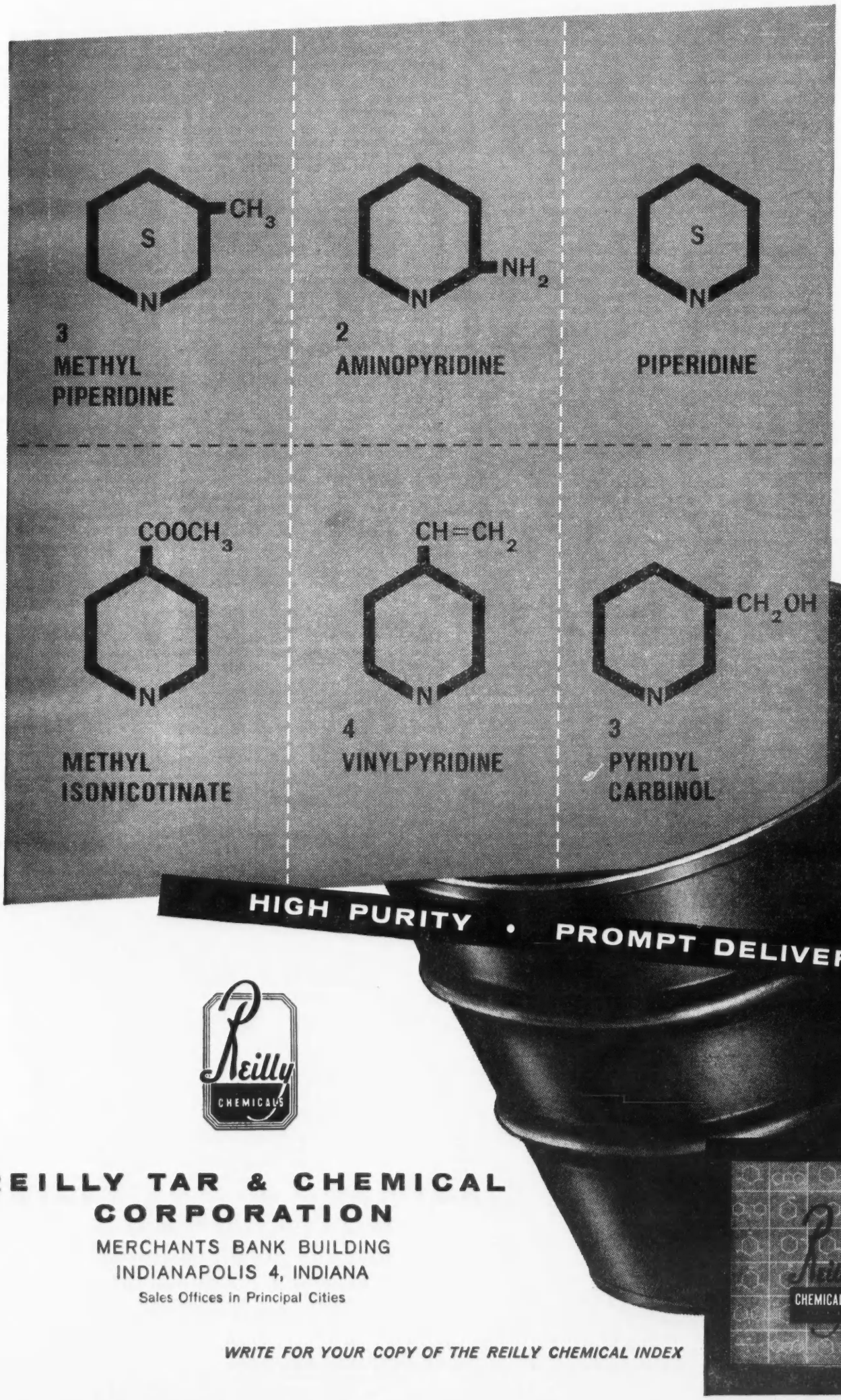
Examples: oxidation of tetralin to yield benzene-ortho-diacetic acid, aromatic polyethers, greatly expanded uses of alpha and betanaphthol in applications suggested by present uses of phenol and naphthalene dicarboxylic acids in applications suggested by uses of phthalic, isophthalic and terephthalic acids.

• The trend of tailoring chemical products to more specific end-uses will continue, but marketers will be increasingly on the alert "to see that the true costs of this increasing specificity can be recouped in the market place."

• Important commercial chemical processes will continue to develop out of

—*Continued on page 50*

# Available in Drum Quantities

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**DIRECTOR OF MANUFACTURING: B. Ross Nason, who has joined Mobay Chemical Company in Pittsburgh, Pa., as director of manufacturing and engineering.**

## Chemical Exports Do A Quick Flip in July

Chemical exports recovered quickly during July from the low level of June, while imports fell during the month, according to preliminary estimates just released in Washington by the Bureau of Census.

July exports of chemical and related products had a value of $150 million, the agency says, compared with $139.9 million in June and $145.4 million in July of last year.

Imports during July amounted to $29.2 million. These compare with $37.7 million in June and $24.5 million in July 1960.

These changes in chemical exports and imports occurred during the month in reverse pattern to the trend of merchandise generally, the bureau's figures show.

While chemical exports bounded upward, exports of all merchandise slipped off about 5 percent from June to a level of $1,558.4 million in July. The reason was decreases in exports of four of the eleven major groups of commodities.

On a seasonally adjusted basis, however, a somewhat different picture is presented by the figures. The bureau estimates general exports on an adjusted basis at $1,707.2 million in July, a level about 7 percent above the comparable total of $1,591.2 million in June.

For the seven-month period January-July, the bureau says, general exports, excluding military shipments, were at an annual rate of $19,899 million, an increase

*—Continued on page 46*

## Vick Chemical's Top Post Going to McLoughlin Oct. 1

John T. McLoughlin will become president and general manager of Vick Chemical Company, a division of Richardson-Merrell, October 1. At the same time Ernest P. Zobian, the division vice-president, will be advanced to executive vice-president.

Mr. McLoughlin is now president of Mead Johnson Laboratories, a division of Mead Johnson & Co.

### SOCMA Sets Luncheon Date

Synthetic Organic Chemical Manufacturers Association will hold its regular monthly luncheon meeting this Tuesday (September 12) at the Roosevelt hotel in New York. Hugh C. Hoffman, vice-president of Opinion Research Corporation, will discuss "Business Reaction to the Kennedy Economic Program."

# Spain's Plastics on the Upswing In Capacity, Production and Use As Solvay Expands PVC Unit

A general rapid upswing is under way in Spanish plastics capacity, production and consumption. Latest reported expansion: Solvay Company, big Belgian chemical and plastics combine, is enlarging the polyvinyl chloride operations of its Iberian subsidiary. According to news seeping out of Madrid, Solvay is considering tripling its production of PVC and is importing extrusion and press equipment from Italy. Most of the Solvay PVC sheet output is understood to be used in roofing and wall applications.

Industry statistics show that Spanish plastics consumption recovered sharply last year from 1959. In addition to Solvay, other PVC producers are raising their capacity.

By the end of this year, Madrid experts expect PVC capacity to be 11,000 metric tons, against an output potential of 8,600 tons last year and 6,000 tons in 1959. PVC capacity in 1963 is forecast at about 25,000 tons.

**Plastics Investment in 1960**

Last year an estimated $5 million was invested in new construction for plastics production and fabrication in Spain.

Within three years, petrochemical production of polystyrene, polyethylene and polypropylene will be launched in Spain, mostly through joint ventures with American firms and international oil companies.

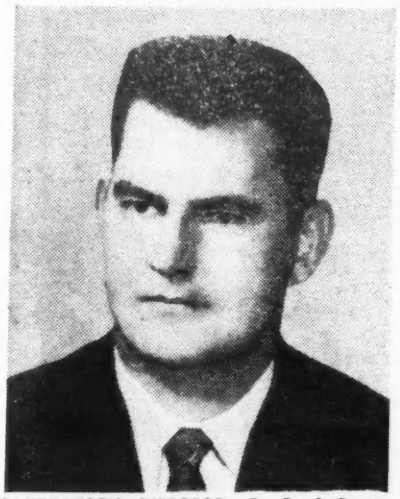
With polyethylene prices falling by about 50 percent in Spain last year, the country's statistics show imports rising to 5,000 tons in 1960 from 2,000 tons in 1959.

Overall, Spanish plastic prices are estimated to have dropped 12 percent more last year. Other major plastics produced in the country are phenolic resins, up to 3,200 tons from 2,600 tons in 1959; and amide plastics, 4,250 tons against 2,500 tons in 1959.

In the field of chemical fertilizers, the Ministry of Agriculture forecasts imports of 500,000 tons of ammonium sulfate and 230,000 tons of other nitrogenous fertilizers this year.

The ministry is predicting that Spanish consumption of phosphate fertilizers will decline slightly to 2,127,900 tons of superphosphates, with consumption of ammonium sulfate rising to 996,600 tons against 918,000 tons last year.

Spanish producers this year are expected to turn out 500,000 tons of ammonium sulfate and 236,000 tons of other nitrogenous fertilizer types. The country also produces its total requirements for 300,000 tons of potash fertilizers yearly.



**LABORATORY DIRECTOR: B. D. LaGrone, named laboratory director of Thermatomic Carbon Company, Sterlington, La., a division of Commercial Solvents Corporation.**

## Air Products Buys Delta Oxygen's Assets

Delta Oxygen Company, Memphis, Tenn., now belongs to Air Products & Chemicals, Inc., Allentown, Pa. Although all of Delta's business and assets were acquired, the financial details were not revealed.

According to Leonard Pool, president of Air Products, the acquisition will allow his company to expand quickly into a new four-state area, while offering customers of Delta the benefits of large tonnage liquid oxygen and nitrogen production, and extensive engineering technology, research and development.

Air Products is a leader in the cryogenic industry.

Delta makes and distributes oxygen, nitrogen, argon, acetylene, hydrogen and welding and cutting equipment through five plants in Tennessee, Arkansas, Kentucky and Mississippi.

Air Products is completing a $35 million plant expansion that will materially increase its output of industrial gases. It produces and markets a complete line of such gases as well as cutting and welding equipment throughout the eastern and midwestern United States.

## Nacto Chemical Is Bought By Chemical Compounding

Chemical Compounding Corporation, Brooklyn, N.Y., has acquired the assets and business of Nacto Chemical Products Corporation, Bronx, N.Y., manufacturers of automotive chemicals and related products.

Chemical Compounding, a manufacturer of maintenance and sanitary chemical specialties, will continue to market its products under the "Quist" brand. The Nacto name will be retained for Chemical Compounding's automotive division.

## NPVLA Meeting Program Features Speech by Keating

Senator Kenneth B. Keating of New York will keynote the seventy-fourth annual meeting of the National Paint, Varnish & Lacquer Association, slated for October 30 to November 1 at the Statler-Hilton hotel in Washington, D.C.

Leo Cherne, executive director of the Research Institute of America, will address the general business session on November 1.

In addition to this year's special "Know Your Costs" sessions, the meeting will also feature forums on advertising and sales promotion, credits and collection, chemical coatings, traffic, trade sales and legislation.

Reservations and information are available from NPVLA at 1500 Rhode Island Avenue, NW, Washington 5, D.C.

The annual Naval Stores Breakfast—held at the time of the NPVLA meeting—has been set for the morning of October 31 in the presidential ball room of the Statler-Hilton. Chairman of this year's meeting is G. Austin Wharry.

# Pesticides Market Growth in Canada: 5-10 Percent by '66

Canada's use of pesticides is expected to grow 5 to 10 percent during the next five years as nationwide campaigns against spruce budworm, wild oats and grasshopper infestations continue. Accompanying the trend will be a comparable growth of US imports, which comprise almost 50 percent of all pesticide products sold in Canada. A further US stake in Canada involves local facilities affiliated with or owned by American concerns.

***US Pesticide Exports to Canada***

| | 1960 |
|---|---|
| Copper sulfate | 654,400,000 lbs. |
| Lead arsenate | 81,700,000 lbs. |
| Calcium arsenate | 47,700,000 lbs. |
| Pyrethrum extract | 1,600,000 lbs. |
| Paradichlorobenzene | 2,352,400,000 lbs. |
| DDT, technical | 1,225,100,000 lbs. |
| DDT, formulations containing 20-74 percent DDT | 438,500,000 lbs. |
| DDT, formulations containing 75 percent or more DDT | 5,000,000 lbs. |
| BHC, technical, and formulations containing 6 percent or more gamma isomer of BHC | 5,700,000 lbs. |
| Herbicides, 2,4-D and 2,4,5-T as parent acid | 3,950,500,000 lbs. |
| Herbicides, n.e.c | 3,155,100,000 lbs. |
| Agricultural sulfur, n.e.c., except formulations | 606,200,000 lbs. |
| Organic phosphate insecticide concentrates and formulations of 15 percent or more organic phosphates, n.e.c. | 421,400,000 lbs. |
| Polychlor insecticide, technical, insecticides concentrates and formulations of 15 percent or more polycholors, n.e.c. | 2,755,200,000 lbs |
| Agricultural insecticides and insecticide formulations, n.e.c. | 1,803,000,000 lbs. |
| Fungicides | 4,593,800,000 lbs. |
| Fumigants | 395,400,000 lbs. |
| Insecticides and other pesticides, household and industrial, n.e.c. | 3,010,100,000 lbs. |
| Disinfectants, household and industrial, n.e.c. | 3,475,800,000 lbs. |
| Total | 29,478,700,000 lbs. |

Source: Bureau of the Census.
n.e.c. Not elsewhere classified.

These are the salient findings of a report relayed by Business & Defense Services Administration from the American Embassy at Ottawa.

Stubborn spread of the spruce budworm will require a control program lasting "for years," BDSA says. Though infestation is under control in the eastern provinces, requirements in other areas will remain heavy.

Wild oats covering millions of Canadian

*—Continued on page 40*

## Texize Chemical Acquires Laundry Additive Producer

Texize Chemicals, Inc., a Greenville, S. C., producer and distributor of textile chemicals and cleaning compounds, has acquired Hood Chemical Company, of Ardmore, Pa.

Hood, which produces chemical laundry additives, will be operated as the Hood Chemical Division of Texize. The combined companies are expected to have sales in excess of $22 million in fiscal 1961. Last year their combined sales totaled $19.6 million.

### Armed Forces Unit to Meet

The Armed Forces Chemical Association will hold its sixteenth annual meeting in Washington, D. C., this week, September 13 to 15, at the Statler-Hilton hotel. Speakers will discuss "Balanced Military Power Through Science and Industry," which is the theme of the meeting.

# Borax Research Is Keyed to Forward Integration

Forward integration into refined boron compounds keys the up-to-date research effort of US Borax & Chemical Corporation, the world's biggest borax producer.

Two men from US Borax told the American Chemical Society's chemical marketing and economics division all about it last week at the national meeting in Chicago.

In a paper titled "Borax Integrates Forward," Grover C. Collins and George W. Griggs emphasized the broad industrial applications of boron as against the comparatively constricted though more familiar consumer uses.

Boron products and industry just naturally go together, they indicated. The great variety of properties found in borax runs parallel to the diversity of industrial needs. Research, then, means finding and isolating those properties to meet specific needs.

For example, crystalline elemental boron has afforded an opportunity to study the optical and electrical properties of the chemical, it was pointed out.

After satisfying itself that a research product can fill a need, US Borax applies a set of rigorous criteria in reaching a marketing decision. Perhaps the most important question asked is "Will it be competitive?"

Using sodium hexylene glycol monoborate, a new US Borax development product, as an example, the two men described the company's approach to the question this way:

"This is a difficult question to con-

*—Continued on page 58*

*Other stories on last week's ACS chemical marketing and economics meeting in Chicago appear on page 5 and in the trade name chemicals report on page 47.*

Meeting Dates
May Be Found
On Page 9

*the creative approach to MODERN CHEMISTRY*

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WASHINGTON EDITOR: Ralph L. Cherry, 956 National Press Building, Washington 4, D.C.
EUROPEAN EDITOR: Clare M. Cotton, 26A Wellington Road, London NW 8, England
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PRESIDENT: William S. Auchincloss
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## What Will 'FTC' Mean

HR 1233, a congressional measure referred to in an OPD news item two weeks ago, represents one of the moves of the federal administration toward the objective of its program to revise, revamp or reform various regulatory agencies. It has specifically to do with the Federal Trade Commission, which it would convert into something that would more aptly be called the "Federal Tough Court."

Some such change certainly would come as the result of that bill's being made a part of the law of the land, because, under such a law, a complaint by the FTC agency would be an immediate and direct order to the business firm addressed that whatever it was charged with doing must have stopped at once. Tell your congressmen to vote "Nay."

In view of the potentialities of such law, it is not surprising that the US Chamber of Commerce has come out in strong opposition to the proposed vesting of an administrative agency with the peculiar judicial power to find a defendant of its designation guilty of whatever it charged, without a trial or even a hearing. Such a proposal is wholly in conflict with the fundamental rights set up and guaranteed for the people of the United States by its constitution.

There is no more reason to be surprised that the proposal is vigorously supported by the FTC chairman—and probably by his colleagues. That agency, in common with all others having any established or assumed role in what has come to be the all-embracing scope of governmental anti-business activities, wants to have unlimited authority to carry out to its own desired end any and all "anti" doings that it undertakes.

The constitutionally provided guaranties for the people of the United States cannot, under any pretext presented by one of its disregardful members, be so bypassed by any governmental agency, not even a duly constituted court, so as to outlaw even one of those people without duly authorized and duly conducted judicial proceedings.

## Space Chemistry

The chemical profession and industry can easily find more than enough to keep them fully occupied under the many opportunities and challenges with which they are faced within the terrestrial atmosphere. But, in common with numerous other groups, they are much interested—theoretically, experimentally and productively—in what additionally will, or at least may, come into their areas of activity with the progressively developing venturings into space.

Chemically, one of the already presented attractive potentialities of those venturings has to do with the providing of fuels for space ships, rockets, missiles and other equipment. Considerable progress has been made along that line—it is in truth a very broad lane. Among the fuels reported to be in use—at least experimentally — are aluminum-enriched polyethylene, boranes, boron, dimethyl hydrazine, lithium-aluminum hydride and trimethyl cyanogen. Because of the lack of oxygen in space, the igniting of a space fuel requires that it be supplemented, or complemented, with an oxidizer. Reported to be most commonly used are hydrogen peroxide and a special nitric acid.

Another challenge for chemistry from space has to do with the providing of "space air"—a safely and satisfactorily respirable atmosphere for those who ride in space vehicles. As the terrestrial atmosphere is mainly composed of nitrogen and oxygen, in a ratio of approximately 3.7-to-1, there would seem to be more than a trace of justification for basing experimentation on a nitrogen oxide. Presumably, at least some experimenting has been and is being done. Information on any aspect of such work is not readily, if at all, available by way of any reports on any space flights that have actually been made.

## Tariff Specificity Is Needed

Presumably, we were a bit over-optimistic when, two weeks ago, discussing "Chemicals and Tariffs," we said that it was doubtful that the quite common governmental objection to simplification would lead to any attempt to block the tariff-simplification proposed in HR 8691. Whether the blocking complained of by the Manufacturing Chemists' Association (see page 7 last week) is action or inaction on the part of responsible congressional units, is an open question; but it is clearly evident that it is working.

Of course, the responsibility-dodging lawmakers will argue most loudly that they have other things of far greater importance to attend to. That being a matter of relativity, the basis of which is seldom of little other than individual breadth, is something that everybody has to take—and very often eventually like. But, the MCA position is not individually based; it is derived from the world-trade experience of one of this country's most important industries.

As the MCA president has said, tariff classification is not legislatively an aspect of trade agreements. But, it can be and would be of useful assistance in the development of such relations, if it is put into working order before their discussion gets underway next year.

Every member of management and ownership in the chemical industry should lay the full purport of the MCA attitude on tariff classification emphatically upon the minds of his congressmen—be they open or shut.

## A LOOK AT THE FIGURES

### Chemicals Production: How It's Going

| | | June 1961 | June 1960 |
|---|---|---|---|
| Acetic Acid, Synthetic | lbs. | 63,732,985 | 63,710,346 |
| Acetone | lbs. | 60,776,055 | 66,145,114 |
| Ammonia, Anhydrous | tons | 442,503 | 407,907 |
| Benzene | gals. | 41,555,693 | 37,890,214 |
| Chlorine | tons | 375,103 | 377,055 |
| Formaldehyde (37% basis) | lbs. | 139,062,972 | 143,937,706 |
| Methanol, Synthetic | lbs. | 163,150,770 | 143,777,903 |
| Phthalic Anhydride | lbs. | 33,490,090 | 31,988,901 |
| Sodium Hydroxide (Caustic Soda 100% NaOH) | tons | 394,887 | 402,923 |
| Sulfuric Acid (100% $H_2SO_4$) | tons | 1,452,107 | 1,495,438 |

Sources: Tariff Commission, Bureau of Census

## Meetings

American Coke & Coal Chemicals Institute, annual meeting, Greenbrier hotel, White Sulphur Springs, W. Va., October 23-24.

American Institute of Chemical Engineers, national meeting, Lake Placid Club, Lake Placid, N. Y., September 24-27.

**Armed Forces Chemical Association, annual meeting, Statler-Hilton hotel, Washington, D. C., September 13-15.**

**Chemical Market Research Association, Sagamore hotel, Bolton Landing, Lake George, N. Y., September 11-12.**

Chemical Specialties Manufacturers Association, annual meeting, Roosevelt hotel, New York, December 4-6.

Commercial Chemical Development Association, fall meeting, Palmer House, Chicago, October 18-19.

**Drug Chemical & Allied Trades Association, annual meeting, Pocono Manor Inn, Pocono Manor, Pa., September 14-17.**

Federation of Societies for Paint Technology, annual meeting, Shoreham and Sheraton-Park hotels, Washington, D. C., November 2-4.

**International Superphosphate Manufacturers' Association, biennial technical conference, Wiesbaden, Germany, September 11-15.**

Manufacturing Chemists' Association, semi-annual meeting and midyear conference, Commodore hotel, New York, November 21.

National Agricultural Chemicals Association, annual meeting, The Homestead, Hot Springs, Va., October 29-November 1.

National Paint, Varnish & Lacquer Association, annual meeting, Statler-Hilton hotel, Washington, D. C., October 30-November 1.

**National Petroleum Association, annual meeting, Traymore hotel, Atlantic City, N. J., September 13-15.**

National Wholesale Druggists' Association, annual meeting, Americana hotel, Bal Harbour, Fla., October 14-19.

Pharmaceutical Manufacturers Association, eastern regional meeting, Waldorf-Astoria hotel, New York, December 11-12.

Society of Chemical Industry, American section, chemical industry medal dinner, Waldorf-Astoria hotel, New York, October 13.

**Synthetic Organic Chemical Manufacturers Association, monthly luncheon meeting, Roosevelt hotel, New York, September 12.**

Toilet Goods Association, scientific section meeting, Waldorf-Astoria hotel, New York, November 29.

# Washington Talks It Over

### Chemistry Is the Most Popular Course in the Curriculum When It Comes to Graduate Fellowships, But Physics and Mathematics Are a Couple of Branches of Learning That Are Coming Up Fast.

By Ralph L. Cherry
Washington Editor

Chemistry is still leading the field in the number and dollar volume of graduate fellowships being awarded by the 139 universities which annually give 95 percent of all doctorates granted in this country. Physics and mathematics are coming up fast, however, in this age of developing atomic energy.

With so much emphasis being placed on the need for increasing the numbers of scientists qualified to handle the growing complexities of modern-day technology, and the fears of this nation falling behind Russia in this endeavor, the Office of Education recently set out to find out where we stand on this score.

These are some of the facts uncovered: The nation's universities are granting more graduate fellowships in the physical sciences and mathematics than in any other fields. However, substantial capacity in existing institutions for additional doctoral candidates goes unused because of a dearth of fellowship and other financial assistance.

According to latest figures obtainable—for the school year 1959-60—20,811 graduate fellowships were granted with a total value of $35,040,578. Fellowships for the sciences and engineering were valued at $19,424,354. This is over half (55 percent) of the total value of all fellowships.

The largest single number of fellowships, 2,032 with a dollar value of $3,594,827, were granted in the field of chemistry. Physics had 1,265 fellowships valued at $2,560,789; and mathematics, 1,122 fellowships valued at $2,469,314.

By far, the largest single portion of the $19,424,354 allotted to sciences and engineering in 1959-60 was in the field of the physical sciences. These include physics, chemistry, mathematics and geology. They received $9,524,514 or nearly half of the allotment for science and engineering.

Universities estimated that they could have accommodated another 20,000 graduate students than were enrolled. More than half of this capacity could have been devoted to students in science and engineering had the financial backing been available.

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## CHEMICALS AND RELATED MATERIALS

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# Current MARKET Quotations

Unless otherwise indicated, listings are first-hand quotations prevailing, according to information and belief, September 8 on large lots, f.o.b. New York, with the lowest in the left-hand column and the highest in the right-hand column. The listings do not represent bid and asked prices nor a range over the week. Differences between high and low may be accounted for by differences in quantity, quality, locality, or individual suppliers' views. An index to the weekly market reports is to be found on page 4.

## A

Abies siberica oil, cns. ..... lb. 1.90 - 2.40
Acacia (see Arabic gum).
Acetaldehyde, 99%, dms., c.l., frt. alld .. lb. .12 - —
dms., l.c.l., frt. alld ..... lb. .13½- —
tanks, frt. alld ..... lb. .10 - —
Acetaldehyde prices 1c. higher in West.
Acetaldol (see Aldol).
Acetanilide, tech., flaked, bbls., bgs., c.l., frt. alld lb. .32½- —
bbls., bgs., ton lots, frt. alld, lb. .33½- —
bbls., bgs., smaller lots, frt. alld lb. .36½- —
USP, bbls., 225-lb. dms., any quantity lb. .90 - —
100-lb. dms., any quantity lb. .92 - —
Acetic acid, coml., or redist., 28%, bbls 100 lbs. 4.80 - —
56%, bbls. ..... 100 lbs. 8.25 - —
70%, bbls. ..... 100 lbs. 9.95 - —
80%, bbls. ..... 100 lbs. 10.45 - —
glacial, syn., CP, dms., c.l., divd. E ..100 lbs. 18.75 - —
tech., dms., c.l., divd. E. 100 lbs. 13.75 - —
dms., l.c.l., divd. E ...100 lbs. 15.25 - —
tanks, divd. E ..... 100 lbs. 10.00 - —
USP, tanks, divd. E ....100 lbs. 13.00 - —
Acetic anhydride, aluminum ret. dms., c.l., divd. E lb. .16½- —
aluminum ret. dms., l.c.l., divd. E. lb. .18 - —
tanks, divd. E ..... lb. .14 - —
Acetic anhydride prices 1c. higher in West.
Acetoacetanilide, fib. dms., c.l., divd lb. .79 - —
fib. dms., l.c.l., divd ..... lb .71½- —
Acetoacet-o-chloroanilide, fib. dms., c.l., divd .. lb. 1.25 - —
fib. dms., l.c.l., divd ..... lb. 1.26 - —
Acetoacet-o-toluidide, fib. dms., c.l., divd ..lb. .73 - —
fib. dms., l.c.l., divd ..... lb. .74½- —
Acetone, CP, dms., c.l., divd .. lb. .09½- —
dms., l.c.l., divd ..... lb. .11 - —
tanks, divd. ..... lb. .07 - —
Acetonitrile, dms., c.l., frt. alld .. lb. .37½- —
dms., l.c.l., frt. alld ..... lb. .39 - —
tanks, frt. alld ..... lb. .35 - —
Acetophenetidin, USP, powd., 200-lb. dms., 1,000 lbs., frt. alld lb. 1.20 - —
100-lb. dms., 1,000 lbs., frt. alld, lb. 1.22 - —
Acetophenone, cns., dms ..... lb. .42 1.30
Tech., dms., c.l., works ..... lb. .32½- —
dms., l.c.l., works ..... lb. .34 - —
tanks, works ..... lb. .30 - —
N-Acetyl-p-aminophenol, dms., t.l. (min. 23,000 lbs.), frt. adjusted lb. 1.30 - —
dms., 1,000-lb. lots, same basis .. lb. 1.40 - —
dms., 100-lb. lots, same basis .... lb. 1.54 - —
Acetylene black, imp., bgs., c.l., duty and freight extra lb. .20 - —
cs., l.c.l., ex whse ..... lb. .25½- .31
Acetylene tetrabromide, 16-dm. lots or more, f.o.b. works lb. .53 - —
Acetylsalicylic acid, USP, cryst. (20-40 mesh), powd. (80 mesh), 250-lb. dms., c.l., pt. of shipt lb. .56¼- —
USP 10% starch granulation, 12-50 mesh, white, 250-lb. dms., c.l., same basis lb. .56¼- —
(Pink and green granulations 5c. per lb higher.)
Freight equald, shipt. identical quantity over standard routes, from N.Y., Phila., Midland, Mich., Chicago and St. Louis.
Acetyltributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .35½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver lb. .36½- —
tanks, frt. alld. E. of Denver, lb. .33 - —
Acetyltriethyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver lb. .39½- —
non-ret. dms., l.c.l., frt. alld, E. of Denver lb. .40½- —
tanks, frt. alld. E. of Denver. lb. .37 - —

### ACIDS

**Acid quotations are listed individually. For example, prices on Acid, cresylic, may be found in the C's under Cresylic acid.**

Aconite root, bls. ..... lb. .50 - .55
Acrolein, tech., dms., c.l., works lb. .36 - —
dms., l.c.l., works ..... lb. .36¾ - —
tanks, works ..... lb. .31 - —
Acrylamide, dms., t.l., f.o.b. works, lb. .58 - —
dms., l.t.l., same basis ..... lb. .60 - —
Acrylic acid, glacial, dms., c.l., t.l., divd .lb. .42½- —
dms., l.c.l., l.t.l., divd ..... lb. .43½- —
tanks, divd. ..... lb. .40 - —
tech., esterification, tanks, frt. alld, lb. .38 - —
tech., polymerization, tanks, same basis .lb. .38 - —

## Abies Siberica Oil—Ammonium Biborate

Acrylonitrile, dms., c.l., t.l., works lb. .17½- —
dms., l.c.l., l.t.l., same basis .... lb. .18½- —
tanks, same basis ..... lb. .14½- —
Adeps lanae (see lanolin).
Adipic acid, bgs., c.l., divd ..... lb. .29 - —
bgs., l.c.l., divd. ..... lb. .31¾- —
Agar, USP, Kobe No. 1, strip, bls. lb. 3.00 - 3.10
powd., 30 mesh., fib. dms. lb. 2.40 - 2.60
dl-Alanine, dms., 100-lbs. or more, f.o.b. works lb. 5.25 - —
dms., 1-99 lbs., same basis lb. 10.00 - —
Aldol, 95%, dms., l.c.l., works lb. .28 - —
Aldrin, tech., fib. dms., c.l., t.l. dlvd lb. .99 - —
fib. dms., l.c.l., dlvd lb. 1.04 - —

### ALCOHOLS

**Alcohol quotations are listed individually. For example, prices on Alcohol, furfuryl, may be found in the F's under Furfuryl alcohol.**

Aletris root, bgs ..... lb 1.50 1.75
Algin (see Sodium alginate)
Alizarin (see 1,2-Dihydroxy anthraquinone).
Alkali blue dry, 250-lb. bbls., divd. E. of Rockies lb. 2.45 - —
Alkali blue prices 1c. higher W. of Rockies.
Allethrin, 90%, dms., frt. alld lb. 28.80 -28.90
Soln., 20%, dms., 200-2,000 lb. lots, frt. alld lb. 6.50 - 6.55
2½% dms. frt alld. ..... lb. .95 - 1.10
Allspice oil (see Pimento oil).
Allyl alcohol, dms., c.l. divd. ..... lb. .32½- —
dms., l.c.l., divd. ..... lb. .34 - —
tanks, divd. ..... lb. .30 - —
Allyl bromide 55-lb cbys 5,005 lbs. or more, works lb. 1.50 - —
55-lb. cbys., 1,045 to 4,950 lbs. works lb. 1.55 - —
55-lb. cbys., 55 to 990 lbs works. lb. 1.60 - —
Allyl chloride, dms., c.l., divd lb. .17½- —
dms., l.c.l., divd ..... lb. .19 - —
tanks, divd ..... lb. .15 - —
Allyl isothiocyanate (see Mustard Oil, syn.).
Almond oil, artif., bitter (see Benzaldehyde)
Almond oil, nat., bitter, f.p.a., bots. lb. 2.75 3.45
NF, bots. ..... lb. 3.00 3.30
sweet, USP, cns., dms ..... lb. .60 - .70

## Abbreviations

### Used in OPD Market Quotations

| | |
|---|---|
| alld. | allowed |
| amorph. | amorphous |
| AMP | American melting point |
| anhyd. | anhydrous |
| AOAC | Association of Official Agricultural Chemists |
| a.p.a. | available phosphoric acid |
| approx. | approximately |
| artif. | artificial |
| ASTM | American Society for Testing Materials |
| Atl. | Atlantic |
| Be. | Baume |
| bbls. | barrels |
| bgs. | bags |
| bls. | bales |
| bots. | bottles |
| b.p. | boiling point |
| b.p.l. | bone phosphate of lime |
| b.r. | boiling range |
| bxs. | boxes |
| C. | centigrade |
| cbys. | carboys |
| CD | completely denatured |
| c.i.f. | cost, insurance, freight |
| cks. | casks |
| c.l. | carlots |
| cns. | cans |
| coml. | commercial |
| conc. | concentrated |
| CP | chemically pure |
| cps. | centipoises |
| cryst. | crystalline |
| cs. | cases |
| ctns. | cartons |
| cyls. | cylinders |
| d- | dextro |
| dbl. | double |
| denat. | denatured |
| dest-dist. | destructively—distilled |
| dl- | dextro-laevo |
| dist. | distilled |
| distr. | distributor |
| djns. | demijohns |
| divd. | delivered |
| dms. | drums |
| dom. | domestic |
| E. | east |
| e.p. | end point |
| equald. | equalized |
| exp. | expressed |
| Ext. | external |
| F. | fahrenheit |
| ferment. | fermentation |
| f.f.a. | free fatty acid |
| f.f.c. | free from chlorine |
| fib. | fiber |
| f.o.b. | free on board |
| f.p.a. | free of prussic acid |
| frt. | freight |
| gal. | gallon |
| gran. | granular |
| grd. | ground |
| i.&a. | iron and aluminum |
| i.b.p. | initial boiling point |
| imp. | imported |
| incl. | included |
| indust. | industrial |
| kgs. | kegs |
| l- | laevo |
| lacq. | lacquer |
| lb. | pound |
| l.c.l. | less carlots |
| l.t.l. | less truckload |
| liq. | liquid |
| mfrs. | manufacturers |
| m- | meta |
| m.a.p. | mixed aniline point |
| min. | minimum |
| m.p. | melting point |
| N- | nitrogen |
| n- | normal |
| nat. | natural |
| neut. | neutral |
| NF | National Formulary |
| NNR | New and Nonofficial Remedies |
| No. | number |
| nom. | nominal |
| o- | ortho |
| ord. | ordinary |
| oz | ounce |
| p- | para |
| Pac. | Pacific |
| pf. | proof |
| phos. | phosphate |
| photo. | photographic |
| pkgs. | packages |
| powd. | powdered |
| precip. | precipitated |
| prod. | producer |
| pt. | point |
| pulv. | pulverized |
| purif. | purified |
| redist. | redistilled |
| refd. | refined |
| refy. | refinery |
| reg. | regular |
| resub. | resublimed |
| ret. | returnable |
| SD | specially denatured |
| s.d. | single distilled |
| S E. | southeast |
| sec. | secondary |
| secs. | seconds |
| s.g. | specific gravity |
| shipt. | shipment |
| soln. | solution |
| s.u. | standard unit |
| syn. | synthetic |
| tanks. | railroad tankcars |
| tech. | technical |
| tert- | tertiary |
| t.l. | truckloads |
| t.w. | tankwagons |
| USP | U. S. Pharmacopoeia |
| vis. | viscosity |
| VM&P | varnish makers & painters |
| W. | west |
| whse. | warehouse |
| w.w. | water-white |

A unit-ton is 2,000 pounds of 1 percent of the basic constituent or other standard of the material. The percentage figure of the basic constituent multiplied by the price figure shown gives the price of 2,000 pounds of the material.

Aloe, Cape, cs. ..... lb. 38 - .40
powd., cs. ..... lb 60 - .65
Curacao, kgs. ..... lb. .75 - —
powd., kgs. ..... lb. .85 - —
Aloin, USP, bbls., dms., kgs ..... lb. 3.25 - 3.75
Alphanaphthol (see a-Naphthol).
Alphanaphthylamine (see a-Naphthylamine).
Alphanitronaphthalene (see a-Nitronaphthalene).
Alphapicoline (see a-Picoline).
Alphaterpinol (see a-Terpinol).
Alphatocopherol (see a-Tocopherol).
Alum ammonium, gran., bgs., c.l., works..100 lbs. 4.80 - —
Lump, dms., works ..... 100 lbs. 5.55 - —
Powd., dms., works ..... 100 lbs. 5.70 - —
Alum potassium, gran., bgs., c.l., works..100 lbs. 5.05 - —
Lump, dms., works ..... 100 lbs. 5.80 - —
Powd., dms., works ..... 100 lbs. 5.95 - —
Alum, potash-chrome, dms ..... lb. .17 - —
Alumina, calcined, bgs., c.l., works. lb. .0533- —
bgs., l.c.l., works ..... lb. .056 - .0835
Aluminum acetate, basic, fib. dms., l.c.l., works .lb. .54 - —
Aluminum chloride comi., anhyd., dms., c.l., works, frt. equald lb. .16 - —
dms., l.c.l., works ..... lb. .16½- —
cryst., dms., c.l., works 100 lbs. 21.00 - —
dms., l.c.l., works .... 100 lbs. 21.50 - —
Soln., 32° cbys., c.l., works .... lb. .0495- —
cbys., l.c.l., works ..... lb. .0570- .1093
tanks, works ..... 100 lbs. 3.95 - —
NF, gran., dms., works ..... lb. .31 - .32
Aluminum fluoride tech., anhyd., bgs., c.l., works. .lb. .16¼- —
bgs., l.c.l., works ..... lb. .17¼- .19¼
bulk, c.l., basis 80% ..... lb. .14½- —
Aluminum fluoride in fib. dms. 0.35c. per lb. higher
Aluminum formate, basic soln., containers extra, c.l., works. 100 lbs. 11.00 - —
containers extra, l.c.l., works. 100 lbs. 11.50 - —
Aluminum hydrate, heavy, bgs., c.l., frt. equald .lb. .0370- —
bgs., 20,000-40,000 lb. lots, same basis .lb. .0395- —
bgs., 2,000-20,000 lb. lots, same basis .lb. .0495- —
bulk, c.l., same basis ..... lb. .0330- —
Light, bgs., c.l., t.l., works ..... lb. .08 - —
bgs., t.l. to c.l., works ..... lb. .09 - —
bgs., l.t.l., works ..... lb. .10 - —
Aluminum hydroxide, dried, USP XV, fib. dms., works lb. .82½- —
fib. dms., contract, works lb. .79½- —
gel, pharmaceutical, 14-15% $Al_2O_3$, fib. dms., works. lb. .22 - —
9-9½% $Al_2O_3$, fib. dms., works. lb. .19 - —
fib. dms. contract, works lb. .18 - —
Aluminum hydroxide, tech., powd., (see Aluminum hydrate).
Aluminum metal, 99½% + 30-lb ingots, 10,000-lb. lots, frt. alld lb. .2810- —
50-lb. pigs, 10,000-lb. lots, frt alld. lb. .26 - —
Aluminum oxide, amorphous (see Alumina, calcined).
Aluminum paste lining, extra-fine, dms lb. .71 - —
Standard grade, dms ..... lb. .48½- —
Aluminum powder lining, extra-fine, dms lb. 1.13 - —
Standard grade, dms ..... lb. .83 - —
Aluminum paste and powder prices are f.o.b. shipping point. Add 1c per lb. for 100-lb. dm., 1½c. per lb. for 50-lb dm., 3c. per lb. for 10 lb. can and 5c. to 12c. per lb. for smaller containers. Deduct 1c per lb. for single shipment of 400 to 1,499 lbs. 2c for 1,500 to 4,999 lbs., 3c. for 5,000 to 29,999 lbs. and 4c. for 30,000 lbs. or more. Where destination is within the continental U. S. a deduction equivalent to the lowest available common carrier transportation rate will be made from seller's invoice on orders of 200 lbs or more
Aluminum resinate, precip., 2.1% Al, dms lb. .45 - —
Aluminum stearate, dibasic, ctns., c.l. lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Monobasic, ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Tribasic ctns., c.l. ..... lb. .39 - —
ctns., l.c.l. ..... lb. .40 - .44
Aluminum sulfate, coml., grd., bgs. c.l., works, frt. equald ton. 41.00 - —
bulk, c.l., same basis .. ton. 40.00 - —
lump, bgs., c.l., same basis ton. 44.00 - —
iron-free, bgs., c.l., works, frt. equald 100 lbs. 3.80 - —
bgs., l.c.l., works, frt. equald. 100 lbs. 4.30 - 8.30
USP, gran., 400-lb. dm., works. lb. .30 - —
USP, powd., dms., works .... lb. .27 - —
Aluminum sulfate prices $1 per ton higher in the South.
Aluminum trihydrate, heavy (see Aluminum hydrate, heavy).
Ambergris, gray, bots ..... oz. 6.50 -10.00
p-Aminoacetanilide, tech., paste, dms., frt. alld lb. 1.37 - —
Aminoacetic acid, NF, bbls., frt. adjusted lb. 1.35 1.60
Aminoazotoluene base, bbls., 100% basis lb. 1.15 - 1.18
p-Aminobenzoic acid, tech., dry, dms., works lb. 1.72 —
2-Amino-4-chlorophenol, tech., solid, dms., frt. alld lb. 2.15 - 3.85
p-Aminodiphenylamine, tech., solid, dms., frt. alld lb. 3.00 - —
Aminoethyl ethanolamine, dms., c.l., divd lb. .475 - —
dms., l.c.l., divd ..... lb. .49 - —
tanks, divd. ..... lb. .45 - —
2-Amino-2-methyl-1-propanol, dms., c.l., frt. alld lb. .44 - —
dms., l.c.l., frt. alld. ..... lb. .45 - —
tanks, frt. alld. ..... lb. .42 - —
m-Aminophenol, dist., dms., ton lots, lb. 2.05 - —
dms., smaller lots. ..... lbs. 2.50 - —
p-Aminophenol, dms., frt. alld. .lb. 1.25 - —
Aminophylline, USP, 100-lb. dm., frt. alld .lb. 3.25 - —
p-Aminosalicylic acid, dms., 100 lbs. or more, frt. adjusted lb. 3.40 - —
Ammonia, anhyd., fertilizer, tanks, works, frt. equald, E. of Rockies .. ton. 84.00 - —
refrigeration, tanks, works, frt. equald, E. of Rockies ton. 94.50 - —
Aqueous, 29.4% tanks, works, anhyd. basis, E. of Rockies, ton. 95.00 - —
Ammoniacal liquor (see Ammonia, aqueous).
Ammoniac, sal., gray, bgs., c.l. works, frt. equald 100 lbs. 8.25 —
bgs., l.c.l., same basis 100 lbs. 8.65 -12.65
Ammoniac, sal., white (see Ammonium chloride, tech.)
Ammonium acetate, purif., dms lb. .40 - —
Ammonium benzoate, USP, 100-lb. dms., 1,000-lb. lots, works. lb. 1.90 - —
Ammonium biborate, gran., dms., c.l., works ton. 325 - —
dms., ton lots, ex whse 100 lbs. 22.86 - —
dms., smaller lots, ex whse. 100 lbs. 24.11 - —

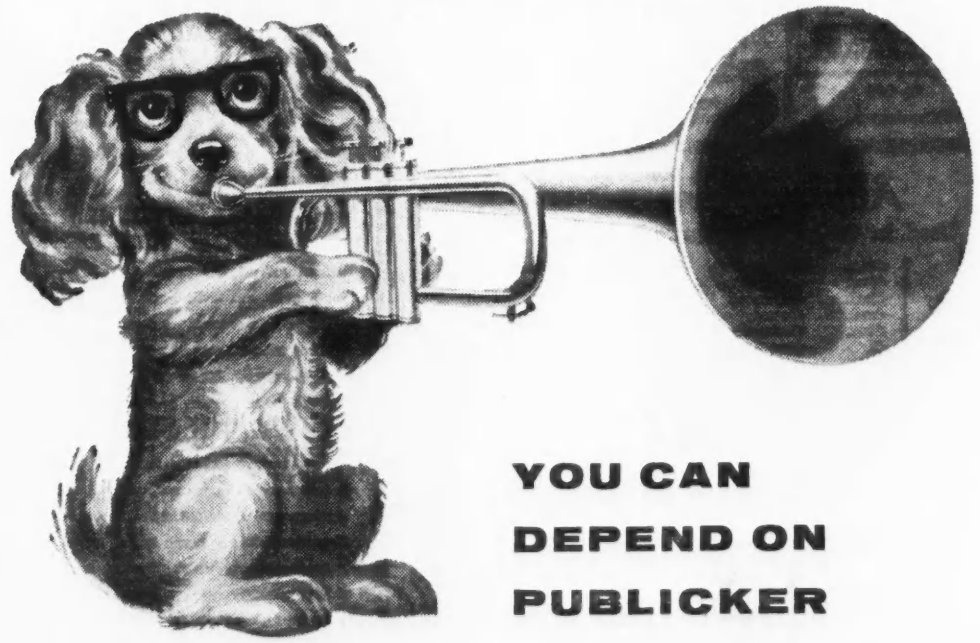
Ammonium bicarbonate, dom., dms., c.l., works..100 lbs. 7.50 - —
dms., l.c.l., works.....100 lbs. 9.50 - —
Ammonium bichromate, dms., works. lb. .42 - .43
Ammonium bifluoride, dms., dlvd lb. .2145- .2245
Ammonium bromide, NF, gran., dms., c.l. t.l. frt. equald lb. .44 - —
dms l.c.l., same basis lb. .46 - —
Ammonium carbonate, USP lump, dms. c.l lb. .15½- —
Ammonium chloride, white tech., fine gran. bgs. c.l. works. 100 lbs 6.00 - —
bgs. l.c.l., works 100 lbs 8.00 - 8.45
USP, gran., 250-lb. dm lb. .20 - —
Ammonium citrate dibasic, 250-lb. dm f.o.b works lb .77 - —
Ammonium dichromate (see Ammonium bichromate)
Ammonium fluoride (see Ammonium bifluoride)
Ammonium gluconate, tech., 200-lb. dm f.o.b works E lb. .45 - —
Ammonium hydroxide (see Ammonia aqeous)
Ammonium iodide, NF, 25-lb. jar, f.o.b. works lb. 4.51 - —
Ammonium lauryl sulfate, dms., c.l., frt. alld lb. .20½- —
dms. t.t.l. frt. alld lb .21½- —
tanks frt alld lb. .19½- —
Ammonium lignin sulfonate, bgs., bgs, l.c.l., works ..... 100 lbs. 3.75 - 4.25
bgs. l.c.l., works ..... 100 lbs. 3.40 - 3.65

Ammonium linoleate, 80%, dms., works lb. .50 - .55
Ammonium molybdate, CP, cryst., 400- lb. dms., 15,000-lbs. works. lb. 1.35 - —
400-lb. dms., 2,000-lb. contracts, work lb. 1.36 - —
400-lb dms. works ..... lb. 1.37 - —
Ammonium nitrate, dom., fertilizer grade, 33.5% N, bgs., f.o.b. works ton.64.00 - —
dom., with dolomite, 20.5% N, bgs., c.l., Hopewell, Va ton.44.00 - —
Imp., Canadian, 33.5% N, eastern, bgs., c.l., ship't point frt. equald to $3 ton base price ton.64.00 - —
Ammonium oxalate, tech., fine gran., 250-lb. dm., f.o.b works E lb. .28½- —
Tech., powd., 200-lb. dm., same basis lb. .28½- —
Ammonium pentaborate, gran., bgs., c.l., works ton.193.00 - —
bgs., ton lots, ex whse 100 lbs.15.27 - —
bgs., smaller lots, ex whse 100 lbs.16.52 -16.52
Ammonium pentaborate powder $10 per ton higher in bags.
Ammonium persulfate, tech., dms., 10-ton lots or more, works lb. .18 - —
dms., smaller lots, works lb. .20 - .23
Ammonium phosphate, comi., bgs., c.l., works, frt. equald lb. .09¼- —
bgs., l.c.l., same basis lb. .10 - —
Dibasic, NF, V, bbls., dms lb. .46 - —
Dibasic, tech., bgs., c.l., works, frt. alld lb. .09¼- —

Ammonium silicofluoride, dms., works lb. .12¼- .13¼
Ammonium sulfamate, bgs., c.l., t.l., works lb. .19 - —
bgs., l.c.l., works..... lb. .20½- .27
Ammonium sulfate, standard granular, bulk, f.o.b. works, base price ton.32.00 - —
Purif., c.l., 100-lb. bgs., f.o.b. works..lb. .08½- —
Large granular, bulk, c.l., works. ton.35.00 - —
bgs., c.l., works..... ton.40.00 - —
Tech., bulk, c.l., t.l., works ton.52.00 - —
bgs., c.l., t.l., works ton.56.00 - —
bgs., l.c.l., l.t.l., works 100 lbs. 3.20 - 5.20
Ammonium sulfide, liq., 40-44%, tanks, frt. equald., 100% basis. ton.160.00 - —
Ammonium sulfocyanide, tech. (see Ammonium thiocyanate).
Ammonium thiocyanate, tech., cryst., dms., c.l., works lb. .20 - —
dms. l.c.l., works lb. .22 - .26
Tech, soln., 50%, tanks, frt. equald., basis ammonium thiocyanate content lb. .17¼- —
Ammonium thioglycolate, comi., 55-gal. dms., ton lots, 100% basis lb 1.15 - —
d-Amphetamine hydrochloride, monobasic, dms lb.17.50 -23.50
dl-Amphetamine hydrochloride, dibasic dms lb. 4.50 - 6.00
d-Amphetamine phosphate, 6b. dms., 100-lb. lots lb.15.00 - —
dl-Amphetamine phosphate, dms.lb. 4.20 - 5.60
d-Amphetamine sulfate, fib. dms. lb.15.00 -17.00
dl-Amphetamine sulfate, fib. dms., lb. 4.20 - 5.60

Amyl acetate, ex fusel oil, tech., dist., from 125° to 150°C., dms., c.l., frt. alld. E. of Rockies lb. .18½- .19
dms., l.c.l., same basis lb. .20 - .20½
tanks, same basis lb. .16 - .16½
ex pentane, reg., dms., c.l., dlvd. lb. .19 - —
dms., l.c.l., dlvd. ..... lb. .21½- —
tanks, dlvd. ..... lb. .16½- —
Tech., dms., c.l., dlvd..... lb. .17 - —
dms., l.c.l., dlvd. ..... lb. .18½- —
tanks, dlvd. ..... lb. .14½- —
Syn., oxo process, dms., c.l., dlvd. ..lb. .19 - —
dms., c.l., dlvd. ..... lb. .20½- —
tanks, dlvd. ..... lb. .16½- —
Amyl alcohol, ex fusel oil (see Fusel oil refd).
Amyl alcohol, ferment, refd., 128°-132°C., dms., l.c.l., dlvd lb. .43½- —
refd., ACS grade, dms., l.c.l., dlvd lb. .45½- —
ex pentane, mixed amyls, dms., c.l., frt. alld lb. .19 - —
dms., l.c.l., frt. alld..... lb. .20½- —
tanks, frt. alld. ..... lb. .16½- —
Primary, dms., c.l., frt. alld.... lb. .20¾- —
dms., l.c.l., frt. alld.... lb. .21¾- —
tanks, frt. alld ..... lb. .17¾- —
Sec-synthetic, dms., c.l., works, frt. alld lb. .19 - —
dms., l.c.l., same basis .. lb. .20½- —
tanks, same basis lb. .17 - —
Tert-synthetic, dms., c.l., frt. alld. E lb. .17 - —
dms., l.c.l., frt. alld. E. lb. .18½- —
tanks, frt. alld E. ..... lb. .14½- —
1-pentanol (syn. normal), dms., c.l., works. lb. .41½- —
dms., l.c.l., works ..... lb. .43 - —
tanks, works lb. .39½- —
2-pentanol, dms., c.l., works lb. .65 - —
dms., l.c.l., works ..... lb. .70 - —
tanks, works ..... lb. .60 - —
Amyl n-butyrate, dms. ..... lb. 1.00 - 1.25
Amyl cinnamic aldehyde, dms lb. 1.70 - 2.20
p-tert Amyl phenol, dms., c.l., works. lb. .28 - —
dms., l.c.l., works ..... lb. .29 - —
Amyl salicylate, cns., dms. ..... lb. .71 - —
Amyris oil, dms ..... lb. 1.50 - —
Anethol, tech., dms. ..... lb. .80 - .92
USP, cns., dms. ..... lb. 1.05 - —
Angelica root, bls ..... lb. .50 - 1.00
Angelica root oil, bots..... lb.120.00 -140.00
Angelica seed oil, bots ..... lb.120.00 -130.00
Aniline, dms., c.l., frt. alld..... lb. .17 - —
dms., l.c.l., same basis..... lb. .18 - —
tanks, same basis..... lb. .15 - —
Aniline oil (see Aniline).
Aniline salt, dms., c.l. t.l., 20,000 lbs. min., frt. alld lb. .33 - —
dms., l.c.l., same basis..... lb. .35 - —
Anise oil, USP, dms ..... lb. 1.90 - 3.00
Anise seed, Turkish, bgs..... lb. .24 - —
Spanish, bgs. ..... lb. .34 - —
Anisic aldehyde, dms lb. 1.50 - 2.20
o-Anisidine, dms., c.l., frt. alld lb. .80 - —
dms., l.c.l., same basis..... lb. .82 - —
tanks, same basis ..... lb. .78 - —
p-Anisidine, dms., works. lb. .97 - —
Anthracene, 90-95%, dms., c.l., t.l. f.o.b., works lb. .42½- —
dms., l.c.l., minimum shipment 1,000 lbs., same basis lb. .45 - —
Anthranilic acid, 99%, 150-lb. dms., dlvd lb. 1.15 - —
Anthraquinone, 99.5% bgs., c.l., frt alld lb. .70 - —
bbls., l.c.l., same basis lb. .73 - —
Electrical grade, bgs. l.c.l., same basis lb 1.10 - —
Antimony butter (see Antimony trichloride).
Antimony metal, bulk, c.l., mines. lb. .32½- —
cs., c.l., mines ..... lb. .33 - —
Antimony oxide, bgs., c.l., frt. alld. lb. .30 - —
bgs., l.c.l., frt. alld..... lb. .31½- —
Prices of antimony oxide are 2c. higher west of the Rockies.
Antimony sulfide, approx. 65%, bgs., 10,000-lb. lots, dlvd lb. .23 - —
bgs., smaller lots, dlvd lb. .24 - .26
Antimony trichloride, anhyd., solid, pails, c.l., works lb. .44½- —
pails, l.c.l., works lb. .46½- —
Antimony-potassium tartrate, tech., powd., 250-lb. dm., f.o.b. works, E lb. .69½- —
USP, powd., 250-lb dm., same basis lb. .74½- —
Apomorphine hydrochloride, USP, bots., 25-oz. lots oz.35.60 - —
Apricot kernel oil, USP, dms lb. .55 - .70
Arabic gum, amber sorts, 10 bgs. lb. .21 - .23
USP, powd., bbls..... lb. .27 - .30
Areca nuts, powd., bbls ..... lb. .18 - .20
Arecoline hydrobromide, NF, bots., tins, 100 oz. or more oz. 4.00 - —
l-Arginine free base, dms., 10-kilo 5-kilo lots or more kilo.60.00 - —
l-Arginine glutamate, dms., 10-kilo lots or more kilo.64.80 - —
l-Arginine monohydrochloride, dms., 5-kilo lots or more kilo.60.00 - —
Arnica flowers (true Montana), bls. lb. 75 - —
Aromatic petroleum solvents (see Solvent Naphtha, petroleum, aromatic).
Arsenic, crude (95%), bulk, c.l., works lb. .016 - —
bbls., c.l., works ..... lb. .031 - —
Arsenic trioxide, NF, powd., dms., 300-lbs., f.o.b. works lb. .48 - —
Arsenic, white, powd., bbls., c.l., works lb. .04½- —
bbls., l.c.l., works lb .06½- .07½
Arsenous acid, tech. (see Arsenic, white).
Arsenous acid, USP (see Arsenic trioxide).
Arylid maroons, deep shades, bbls. lb. 3.70 - —
Light shades, bbls. ..... lb. 2.85 - —
Asafetida gum, cns ..... lb. .36 - .40
Powd., bbls., dms lb 75 - .80
Asbestine (see Talc, fibrous, New York).
Asbestos, Canadian crude
6D, c.l. (30 tons), mines ton.86.00 - —
7D, c.l. (30 tons), mines ton.75.00 - —
7F, c.l. (30 tons), mines ton.71.00 - —
7H, c.l. (30 tons), mines ton.61.00 - —
7K, c.l. (30 tons), mines ton.50.00 - —
7M, c.l. (30 tons), mines ton.44.00 - —
7R, c.l. (30 tons), mines ton.43.00 - —
7RF c.l. (30 tons), mines ton.44.00 - —
7T, c.l. (30 tons), mines ton.41.00 - —
7TF c.l. (30 tons) mines ton.44.00 - —
Asbestos prices are in Canadian funds; l.c.l. lots $4 per ton higher
Ascorbic acid, USP, dms., 100-kilos. kilo. 5.75 - —
dms., less than 100-kilos kilo. 6.00 - —
Ash, black (see Barium sulfide).
Asphalt, gilsonite, black jet, bgs., c.l., mines ton.43.00 - —
ex-whse, 5 tons or more, N. Y., N. J ton.89.50 - —
select, brilliant black, 340°-360°F. fusing pt., bgs., c.l., mines. ton.46.00 - —
270°-295°F fusing pt., bgs., c.l., mines ton.43.00 - —
Petroleum, cut-back, tanks, tank-wagon, refy gal. .09½- —
emulsion, tanks, tankwagon refy. gal. .09½- —
steam-refd., 50-80 penetration, tanks, tankwagon, refy ton.21.00 - —
85-300 penetration, tanks, tank wagon, refy ton.20.00 - —


you're doggone tootin'



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★ *Acetic Acid* ★ *Amyl Acetate* ★ *Refined Fusel Oil* ★ *Proprietary Solvent*
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Aspirin (see Acetylsalicylic Acid).
Atropine, NF, tins ..... oz. Nom.
Atropine sulfate, USP, bots, 10 oz. lots .. oz. 5.25 - —
Azelaic acid, bgs., c.l., dlvd ..... lb. .37 - —
bgs., ton lots, same basis ..... lb. .38 - —

## B

Bacitracin, sterile, over 500,000,000 units 50,000 units. .90 - —
non-sterile, over 500,000,000 units, 50,000 units. .65 - —
Balm of Gilead buds, dried, bgs lb. 1.25 1.35
Barberry root bark, bgs lb. 1.00 1.10
Barbital, NF 100-lb dms., f.o.b. works lb. 4.50 - —
Barbital sodium, NF, 100-lb dms. lb. 4.75 - —
Barium carbonate, precip., bgs., c.l., works ton.111.50 - —
bgs., smaller lots, works ton.126.50 - —
Barium chlorate, dms., works lb. .32 - .41
Barium chloride anhyd., bgs., c.l., works ton.176.00 - —
bgs., t.c.l., works ton.196.00 - —
NF, cryst., dms., 400-lbs., works lb. .23 - —
Tech. cryst., bgs. c.l., works, 100 lbs. 7.00 - —
bgs., t.c.l. works 100 lbs 8.00 - —
Barium chromate, bgs., frt. equald. lb. .38 - —
Barium dioxide (see Barium peroxide).
Barium hydrate, cryst., bgs., c.l., t.l., frt. equald ton.208.00 - —
bgs., t.c.l., t.l. frt equald ton.218.00 - —
Barium monohydrate, 99%, bgs., c.l., frt. equald 100 lbs.11.25 - —
bgs., t.c.l., frt. equald 100 lbs.11.75 - —
Barium monoxide (see Barium oxide).
Barium nitrate bbls. c.l., t.l., dlvd lb. .16 - —
bbls., t.c.l., t.l., dlvd. lb. .17 - —
Barium oxide, grd., dms., c.l., t.l., frt equald ton.275.00 - —
dms. t.c.l., t.l. frt equald ton.285.00 - —
Barium peroxide, dms. frt. equald. lb .20 - —
Barium stearate ctns. c.l. frt alld. lb .41 - —
ctns. t.c.l. same basis lb. .42 .46
Barium sulfate, tech (see Barytes and blanc fixe).
Barium sulfate, X-ray, 100-lb dm. lb. .19 - —
Barium sulfide, dms., c.l., works. ton.100.00 - —
dms., t.c.l., works ton.110.00 - —
Barytes, southern off-color, bgs. mines ton.30.00 - —
95-75% bgs., mines ton.30.00 - —
white water-grd paper bgs. c.l. St. Louis ton.60.00 -60.25
paper bgs. ex whse New York ton.84.85 - —
Battery acid, chys., c.l., works E. 100 lbs 2.35 - —
chys, t.c.l., works, E 100 lbs 2.65 -10.95
Bauxite, bulk, mines ton 7.00 -10.00
Bay oil, NF Puerto Rican 50-55% cns lb. 4.00 - —
NF, Dominica, 50-55%, cns., dms. lb. 3.60 - 4.50
Bayberry wax, bgs lb. .65 - .70
Beeswax, crude, African, bgs. lb. .52 - .54
Brazilian, bgs. lb. .56 - .57
Central American, bgs. lb. .55 - .56
Chilean, bgs. lb. .57 Nom.
Refd. USP bleached white, bricks 100-lb. etns lb. .67 - .69
white, slabs, 100-lb. etns lb. .66 - .68
yellow, bricks, 100-lb. etns lb. .60 - .62
yellow, slabs, 100-lb. etns. lb. .59 - .61
Belladonna leaf, bls. lb. .24 - .26
Belladonna root, bls lb. .35 - .38
Bentonite, dom 200 mesh, bgs., c.l., mines ton.14.00 - —
Imp. Italian, white, high gel., bgs., 5-ton lots, ex whse ton.95.20 - —
bgs., 1-ton lots, ex whse ton.99.00 - —
Imp. Italian, white, low gel., bgs., 5-ton tots, ex whse ton.93.40 - —
bgs., 1-ton lots ex whse ton.97.16 - —
Benzal chloride cbys., works lb. .44 - —
Benzaldehyde, NF, dms. lb. .74 - —
Tech., dms., c.l., t.l. lb. .42 - —
dms., t.c.l. lb. .44 - —
Benzene, pure or nitration, tanks, works:
Baton Rouge, La. gal. .31 - —
Bethlehem, Pa. gal. .31 - —
Birmingham district gal. .31 - —
Chicago district gal. .31 - —
Cleveland district gal. .31 - —
Geneva, Utah gal. .31 - —
Houston, Tex. gal. .31 - —
Johnstown, Pa. gal. .31 - —
Lackawanna, N. Y. gal. .31 - —
Lone Star, Tex. gal. .31 - —
Lorain, Ohio gal. .31 - —
Mennequa, Colo. gal. .31 - —
Middletown, Ohio gal. .31 - —
Philadelphia district gal. .31 - —
Pittsburgh district gal. .31 - —
Port Arthur, Tex. gal. .31 - —
St. Louis, Mo. District gal. .31 - —
Sparrows Point, Md. gal. .31 - —
Syracuse, N. Y. gal. .31 - —
Terre Haute, Ind. gal. .31 - —
Youngstown, Ohio gal. .31 - —
Benzene hexachloride, 25% and 99% gamma isomer (see Lindane).
Benzene hexachloride, tech., high gamma, bgs., c.l., t.l., consignment, dlvd. gamma-unit. .0075 -
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0065 -
Tech., low gamma, bgs., c.l., t.l., consignment, dlvd gamma-unit. .0075 -
bgs., c.l., t.l., direct sale, f.o.b. works gamma-unit. .0056 -
Benzidine hydrochloride, bbls., c.l., frt. alld., 100% basis lb. 1.19 - —
bbls., t.c.l., same basis lb. 1.21 - —
Benzidine sulfate, tech., bbls., frt. alld., 100% basis lb. 1.21 - —
Benzidine yellow, AAA, bbls., dlvd. lb. 2.20 - —
AAOT, bbls., dlvd. lb. 2.55 - —
Lightfast, bbls., dlvd. lb. 3.40 - —
Benzocaine, dms., 100-lbs., frt. alld. lb. 3.25 - —
Benzoic acid, tech., dms., c.l., t.l., frt. alld lb. .25 - .37
dms., t.t.l., same basis lb. .29 - .41
tanks, same basis lb. .21 - —
USP, bbls., dms., ton lots lb. .48 - —
bbls., dms., 1,000-lb lots lb. .50 —

**BENZOL**
Benzol quotations, both coaltar and petroleum, may be found under Benzene.

Benzoin gum, Sumatra, cs. lb. .32 —
Benzophenone, dms lb. 1.35 - 1.40
Benzotriazole, tech. dms., 1,000-lb lots, works lb. 1.93 - —
Benzotrichloride, cbys., 1,000-lb lots or more, frt. equald lb. .21 - —
cbys., smaller lots, frt. equald lb. .23 - —
Benzoyl chloride, cbys. dms., c.l., works, frt. equald lb. .22 - —
cbys., t.c.l., same basis lb .23 - —
tanktrucks, dlvd Metropolitan area lb. .21 - —

Benzoyl peroxide, purif., fib. dms., 50 to 1,000-lb lots, works lb. .99 - 1.08
Benzyl acetate, f.f.c., cns., dms lb. .54 - —
Benzyl alcohol, NF, dms. lb. .54 - —
Tech., dms., dlvd. lb. .47½- .55
Benzyl benzoate, USP, 40-lb. dms. lb. .62 - —
Benzyl chloride, tech., dms., c.l., f.o.b. frt. equald lb. .23 - —
dms., t.c.l., same basis lb. .24 - —
tanktrucks, dlvd., Metropolitan area lb. .21 - —
Benzyl cinnamate, cns lb. 3.80 - 4.00
N-Benzyl-N,N-dimethylamine, 50 dms., frt. alld lb. 1.25 - —
12-49 dms., same basis lb. 1.35 - —
1-11 dms., same basis lb. 1.90 - —
Benzyl formate, cns. lb. 1.70 - 1.85
Benzyl isoeugenol, cns lb. 8.20 - 8.30
Benzyl propionate, bots lb. 1.30 - 1.35
Benzyl salicylate, bots lb. 1.50 - 1.85
Benzylidine acetone, bots lb. 1.65 - 1.75
Benzylidine chloride (see Benzal chloride).
Berberine bisulfate, cns lb. 56.50 - —
Berberine hydrochloride, bots lb. 56.50 - —
Bergamot oil, nat. NF Italian, cns. lb. 11.00 -12.00
Betagammapicoline (see b,g-Picoline).
Betahydroxynaphthoic acid (see b-Oxynaphthoic acid).
Betamethylnaphthalene (see Methylnaphthalene).
Betanaphthol (see b-Naphtol).
Betanaphthylamine (see b-Naphtholamine).
Betaoxynaphthoic acid (see b-Oxynaphthoic acid).
Betaphenylethylamine (see b-Phenylethylamine).
BHC (see Benzene hexachloride, tech.).
Biotin cryst., bots gram.10.00 - —
Biphenyl (see Diphenyl).
Birchtar oil, crude, cns lb. 1.50 - 1.90
Rectified, cns. lb. 1.75 - 2.00

Bismuth chloride, jars lb. 5.11 - —
Bismuth hydroxide, dms lb. 4.60 - 4.85
Bismuth metal, bxs., ton lots lb. 2.30 - —
Bismuth nitrate, cryst., 200-lb. dm. lb. 2.85 - —
Bismuth oxychloride, 25-lb. dm., f.o.b. works lb. 4.93 - —
Bismuth subcarbonate, USP, 25-lb. dm., f.o.b., works lb. 3.70 - —
Bismuth subgallate, NF, 200-lb. dm., f.o.b. works lb. 3.98 - —
Bismuth subiodide, fib. dms lb. 5.37 - —
Bismuth subnitrate, NF, 200-lb. dm., f.o.b., works lb. 3.10 - —
Bismuth subsalicylate, USP, 100-lb. dm, f.o.b. works lb. 4.15 - —
Bismuth trioxide, 100-lb. dms., f.o.b. works lb. 4.40 - —
Bismuth-ammonium citrate, USP, powd., jars lb. 4.22 - —
Bisphenol-A, bgs., c.l., t.l., single shipt., 70,000-lbs. or more, frt. alld lb. .30½- —
bgs., c.l., t.l., less than 70,000-lbs., same basis lb. .31 - —
bgs., t.c.l., same basis lb. .32½- —
Blackberry root bark, bls. lb. .50 - .55

**BLACK PIGMENTS**
Black pigment quotations are listed individually. For example, prices on Black, acetylene, may be found in the A's under Acetylene black.

Blanc fixe, direct process, bgs., c.l., works ton.160.00 —
bgs., t.c.l., works ton.170.00 - —
bgs., t.c.l., New York whse ton.215.00 - —
Blood, dried, 16-16½% ammonia, bgs., New York unit-ton. 5.50 - —
Bloodroot, bls. lb. .80 - .85

**BLUE PIGMENTS**
Blue pigment quotations are listed individually. For example, prices on Blue, ultramarine, may be found in the U's under Ultramarine blue.

Blue dyes (see Dyes).
Blue vitriol (see Copper sulfate).
Bois de rose oil, Brazilian, dms lb 2.05 - —
Peruvian, dms. lb 1.65 - —
BON acid maroons, pure, bbls lb 1.75 - —
Resinated, bbls. lb. 1.50 - —
Bonemeal, steamed, works, E ton.100.00 —
Bone black, dms., c.l., frt. alld lb. .1750- 2225
t.c.l., works lb. .1950- 2425
Pacific coast bone black prices 3¼c. per lb. higher.
Bone phosphate, defluorinated of lime (see Defluorinated phosphate).
Bone phosphate, precip (see Calcium phosphate tribasic).
Borax, tech., anhyd., 99½%, bgs., c.l., works ton 92.00 - —
bgs. ton lots, ex whse, New York or Chicago .. 100 lbs. 7.67 - —


DEPENDABLE PFIZER CHEMICALS

FOR METAL FINISHING ↓

| | CITRIC ACID | SODIUM CITRATE | AMMONIUM CITRATE | GLUCONIC ACID | GLUCONO DELTA-LACTONE | SODIUM GLUCONATE | OXALIC ACID | AMMONIUM OXALATE | FERRIC AMMONIUM OXALATE | TARTARIC ACID | TARTAR EMETIC | ROCHELLE SALT | CREAM OF TARTAR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CLEANING | • | • | • | • | • | • | • | • | | • | | | • |
| POLISHING | • | • | • | • | • | • | • | • | | • | | | |
| PICKLING | • | | • | • | • | | • | | | • | | • | |
| ELECTROPLATING | • | • | • | • | • | • | • | • | | • | • | • | • |
| ELECTROPOLISHING | • | | | | | | • | | | | | | |
| NON-ELECTROLYTIC DEPOSITIONS | • | • | | | | | | | | | | | |
| ELECTROLYTIC OXIDATION | • | | | | | | • | | | | | | |
| ETCHING | • | | | • | • | • | • | | | • | | | |
| GOLD COLORING OF ALUMINUM | | | | | | | • | • | • | | | | |

CITRIC ACID... Non-toxic, mild, yet chemically active against scale and tarnish. Used extensively in the formulation of general metal cleaners and polishes, particularly household products.

SODIUM CITRATE... A preferred ingredient in electroless nickel baths, resulting in a brighter plate. Also finds wide use in electroplating processes.

AMMONIUM CITRATE... Especially useful for the removal of rust in near neutral solutions. Extremely mild and safe to handle.

GLUCONIC ACID... An excellent sequesterant in alkaline derusting solutions; provides rust-free, clean surface ready for further treatment. Also highly effective in aluminum etching and paint stripping compounds.

OXALIC ACID... The most effective chemical for use in automobile radiator cleaners. Also finds wide use in electropolishing and as an ingredient in general metal cleaners.

FERRIC AMMONIUM OXALATE... Used extensively in the production of lightfast gold-colored aluminum.

TARTARIC ACID... Excellent complexing agent for copper in electroplating.

TARTAR EMETIC... Used in electrolytic baths for deposition of silver and antimony alloys on brass, copper and steel surfaces.

ROCHELLE SALT... Increases efficiency and yields finer-grain deposit in alkaline copperplating.

CREAM OF TARTAR... An excellent additive for brass and aluminum cleaning compounds. Its crystalline structure acts as an effective abrasive in paste polishes. Chemically active against tarnish.

For further details write to Chas. Pfizer & Co., Inc., Chemical Division, Brooklyn 6, New York.

Science for the world's well-being®

Pfizer

CHEMICAL DIVISION

Borax, tech., anhyd., 99½%, bgs, smaller lots, same basis 100 lbs. 8.91 -10.91
bulk c.l. works ton 83.00 —
Tech., gran., decanydrate, 99½%, bgs., c.l., works ton 50.00 • —
bgs. ton lots, ex whse. New York or Chicago 100 lbs. 5.31 • —
bgs. smaller lots same basis 100 lbs. 6.56 - 8.56
bulk c.l. works ton 43 50 —
Tech., pentahydrate, 99½%, bgs., c.l., works ton 64.50 • —
bgs. ton lots, ex whse. New York or Chicago 100 lbs. 6.12 • —
bgs. smaller lots same basis 100 lbs. 7.37 - 9.37
bulk, c.l., works ton 58 00 —
USP powd., bgs. c.l., works ton 54.00 • —
bgs., ton lots, ex whse. New York or Chicago 100 lbs. 6.57 • —
bgs., smaller lots, same basis 100 lbs. 7.82 - 9.82
Bordeaux powder tribasic bgs. c.l., dlvd lb. .24 • —
bgs., l.c.l., same basis lb. .26 • —
Boric acid tech., anhyd. 99.9% bgs., c.l., works ton 335 00 • —
bgs. ton lots, ex whse. New York or Chicago 100 lbs 21.27 • —
Tech, anhyd., 99%, bgs., smaller lots, same basis 100 lbs. 22.52 -24.52
cryst. 99.9% bgs. c.l. works ton 163.50 —
Tech., cryst., 99.9%, bgs., ton lots, ex whse., New York or Chicago 100 lbs. 11.67 • —
bgs., smaller lots, same basis 100 lbs. 12.92 -14.92
dms., c.l., works ton 188.50 —
dms., ton lots, ex whse. New York or Chicago 100 lbs. 13.17 • —
dms., smaller lots, same basis 100 lbs. 14.42 • —
gran., 99.9%, bgs., c.l., works. ton. 112.00 • —
bgs., ton lots, ex whse New York or Chicago 100 lbs. 8.78 • —
bgs., smaller lots same basis 100 lbs. 10.03 -12.03
dms., c.l., works ton 137 00 —
dms., ton lots, ex whse. New York or Chicago 100 lbs. 10.29 • —
dms., smaller lots same basis 100 lbs. 11.54 • —
bulk, c.l., works ton. 106.00 • —
powd., bgs., ton lots, ex whse, New York or Chicago 100 lbs. 9.20 • —
bgs., smaller lots same basis 100 lbs. 10.45 -12.45
dms., ton lots, ex whse., New York or Chicago 100 lbs. 10.71 • —
dms., smaller lots, same basis 100 lbs. 11.96 • —
USP boric acid $25 per ton higher in bags.
Borneol, cns. lb 2.75 • —
Boron trichloride, CP, 1,800-lb. cyls., works lb 1.25 • —
100-lb. cyls., works lb 1.70 • —
Boron trifluoride, gas, cyls., t.l., works lb. 70 • —
cyls., l.t.l., works lb. 70 • —
Brimstone (see Sulfur).
Broenner's acid, bbls. lb 1.53 • —
Bromine, purit., cs. c.l., t.l., dlvd. E of Rockies lb .32 • —
cs. l.c.l., same basis lb .34 - .39
ret. dms., c.l., t.l., dlvd. E. of Rockies lb. .31 • —
ret. dms., l.c.l., same basis lb. .31 .34
tanks, same basis lb. .21½ —
Bromochloromethane, dms., c.l., frt. equald lb 48 • —
dms., l.c.l., same basis lb .50 • —
tanks, same basis lb 47 • —
Bromoform, pharmaceutical grade, 5-gal. cby., frt. equald lb 1.95 • —
Bromstyrol, bots in 5.25 5.35
Brucine, cns. oz. 1.10 • —
Brucine sulfate, NF, cns. oz. .85 • —
Buchu leaves, bbls. lb. .60 - .65

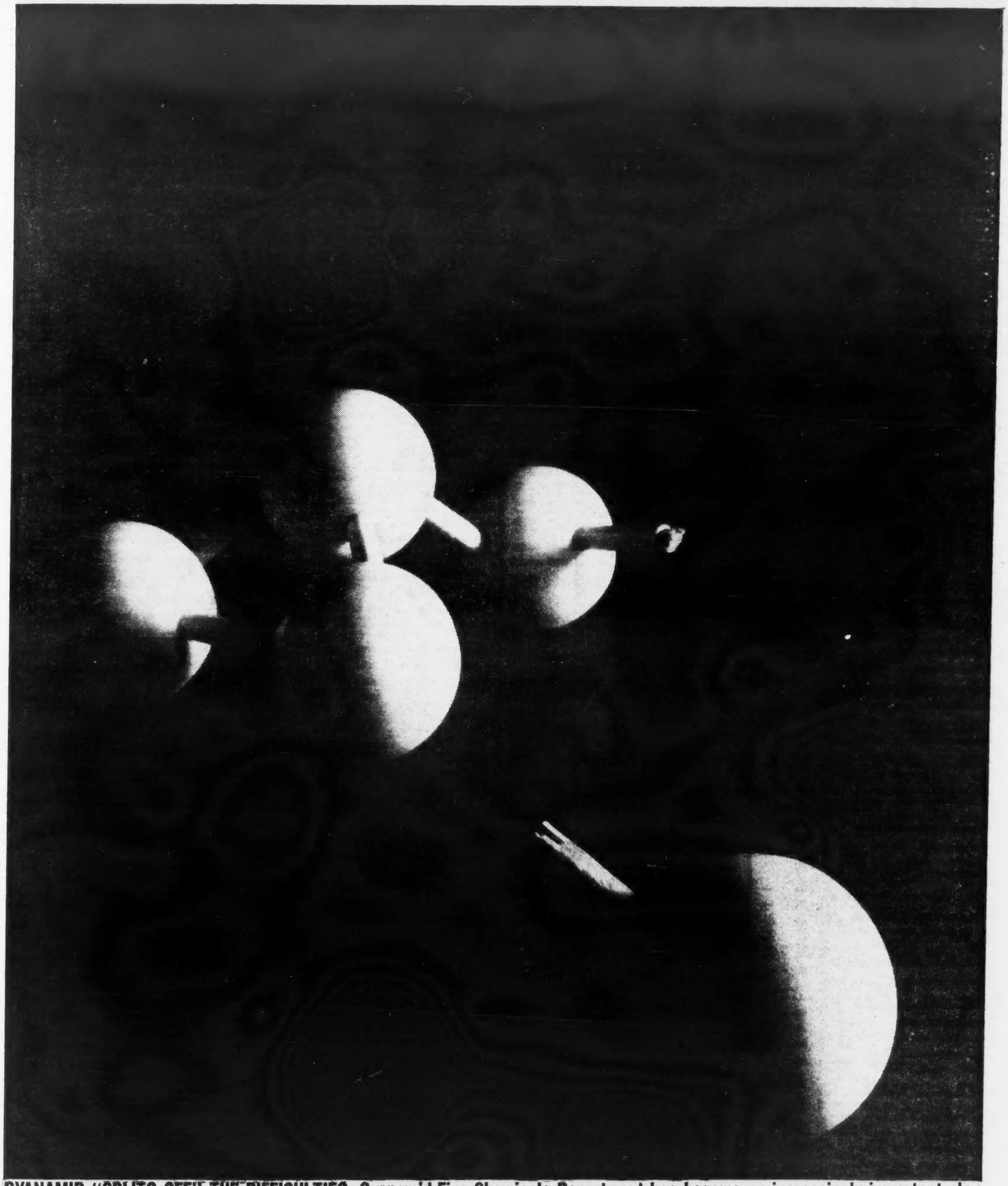
## BROWN PIGMENTS

**Brown pigment quotations are listed individually For example, prices on Brown, Iron oxide, may be found in the I's under Iron oxide brown.**

Butadiene, refd. cyls., c.l., refy lb .21 —
cyls., l.c.l., refy. lb .22 • —
tanks, dlvd. lb .12¾ • —
Butene-1, tanks, works lb .0625 —
Butene-2, tanks, works lb. .0570 —
n-Butyl acetate, ferment, dms., c.l., frt. alld lb. .17 • —
dms., l.c.l., same basis lb .18½ • —
tanks, same basis lb .14½ • —
Syn., dms., c.l., dvld. E lb. .17 • —
dms., l.c.l., same basis lb. .18½ • —
tanks, same basis lb. .14½ • —
sec-Butyl acetate, syn. dms., c.l., dlvd E lb .14¾ • —
dms., l.c.l., same basis lb .16¼ • —
tanks, same basis lb. .12¼ • —
n-Butyl acrylate, dms. c.l. or t.l., straight or mixed frt. alld E lb. .37½ • —
dms., l.t.l., same basis lb. .38½ • —
tanks, same basis lb. .35 • —
n-Butyl alcohol, ferment, dms., c.l., frt. alld lb. .18 • —
dms., l.c.l., frt. alld lb. .19½ • —
tanks, frt. alld lb. .15½ • —
Syn., dms., c.l., dlvd. E lb. .17 • —
dms., l.c.l., frt. alld lb. .19½ • —
tanks, frt. alld lb. .15½ • —
Sec-synthetic, dms., c.l., dlvd lb. .15 • —
dms., l.c.l., dlvd. lb. .16½ • —
tanks dlvd lb. .12½ • —
Tert-synthetic, dms., c.l., frt. alld., dlvd. E lb. .16 • —
dms., l.c.l., same basis lb. .17½ • —
tanks, same basis lb. .13½ • —
Butyl aldehyde (see Butyraldehyde).
Butyl chloride, dms., c.l., works lb .37½ • —
dms., l.c.l., works lb .38¼ • —
n-Butyl ether dms., c.l., works lb .35¼ • —
dms., l.c.l., works lb. .36 • —
tanks, works lb .33¼ • —
Butyl lactate, dms. c.l. frt alld E. Rockies lb 42½ • —
dms., l.c.l., same basis lb. 43½ • —
tanks, same basis lb. 40 • —
Butyl laurate, dms., works lb. .37½ • —
Butyl methacrylate, dms., c.l., t.l., works lb. .55 • —
dms. l.c.l., works lb. .55½ • —
Butyl oleate, refd., dms., l.c.l., works lb. .32 • —
Butyl phenylacetate, dms lb 4.50 4.60
Butyl phthalate (see Dibutyl phthalate).
Butyl stearate, CP, dms., l.c.l., frt. alld. E. of Rockies lb .27½ —
tech., dms., c.l., same basis lb. .25¾ —
Butylamine (see Mono- Di and Tri-butylamine).
tert-Butylamine, dms., c.l., t.l., f.o.b. works lb. .47 • —
dms., l.c.l., same basis lb. .47½ • —
tc., t.t., same basis lb. .45 • —
Butylated hydroxyanisole, food grade, dms., dlvd. lb. 4.75 • —
6-tert-Butyl-m-cresol (see Mono-tert-butyl-m-cresol).
Butylated hydroxytoluene (see 2,6-Di-tert-butyl-p-cresol).
1,3-Butylene glycol, dms. c.l., t.l., dlvd lb .20½ • —
dms., l.c.l., t.t.l., f.o.b. works lb .22 • —
tanks, dlvd lb. .18 • —
p-tert-Butylphenol, bgs., c.l., frt. alld lb. .25½ • —
bgs., l.c.l., same basis lb. .26½ • —
tanks, same basis lb. .23½ • —
Butyraldehyde, dms., c.l., dlvd lb .22 • —
dms., l.c.l., dlvd. lb. .23½ • —
tanks, dlvd. lb. .19½ • —
Butyric acid, 99%, dms., c.l., frt. equald lb. .34 • —
dms., l.c.l., same basis lb. .34½ • —
tanks, same basis lb. .32½ • —
Butyric ether (see Ethyl butyrate).
Butyrolactone, dms., c.l., t.l., works. lb. .40 • —
dms., l.c.l., same basis lb. .43 • —
n-Butyronitrile, dms., c.l., dlvd lb. .56½ • —
dms., l.c.l., dlvd. lb. .57½ • —
tanks, dlvd. lb. .54 • —

# C

Cacao butter (see Cocoa butter).
Cadmium CP red, dark shade, bbls., frt alld E of Rockies lb 5.55 • —
Light shade, bbls., same basis lb 4.65 • —
Medium shade, bbls., same basis. lb. 5.30 • —
Medium, light shade, bbls., same basis. lb. 4.90 • —
Orange-red shade, bbls same basis lb 4.30 • —
Yellow, all shades, bbls. frt alld E. of Rockies lb. 3.02 • —
Cadmium chloride, 400-lb. dms., f.o.b. shipping point lb. 1.56½ —
Cadmium iodide, 25-lb tin dms. lb 6.75 7.00
Cadmium metal, ingots or sticks, ton lots, cs. dlvd lb. 1.60 • —
Cadmium nitrate, purif cryst. 400-lb. dms., less than 5,000 lbs., f.o.b shipping point. lb. .94 • —
400-lb. dms., 5,000 lbs. or more, same basis lb. .90 • —
Cadmium-mercury lithopone orange, deep shade, bbls frt alld E. of Rockies lb. 1.73 • —
Cadmium-mercury lithopone red, dark shade, bbls same Basis lb. 2.03 • —
Red, light shade, bbls., same basis lb. 1.80 • —
Red, medium shade, bbls. same basis lb. 1.95 • —
Red, medium light shade, bbls. same basis lb. 1.88 • —
Red, maroon shade, bbls same basis lb. 2.11 • —
Cadmium-selenide lithopone maroon, bbls., frt alld E of Rockies lb. 2.84 • —
Orange, bbls., same basis lb. 1.66 • —
Cadmium-selenide lithopone red, orange-red shade, bbls. same basis lb. 1.80 • —
Red, dark shade, bbls. same basis lb. 2.64 • —
Red, light shade, bbls., same basis lb. 1.96 • —
Red, medium shade, bbls. same basis lb. 2.31 • —
Red, medium-light shade bbls same basis lb. 2.08 • —
Cadmium-selenide, lithopone, yellow, all shades bbls frt alld E. of Rockies lb. 1.27 • —
Caffeine, NF, citrated, dms, 100-lb lots or more lb 2.70 • —
USP, syn., cryst., hydrous, dms., 100-lb. lots or more, frt. alld lb. 2.25 • —
hydrous, powd., 150-lb. dms., frt. alld lb. 2.25 • —
USP, syn., cryst., anhyd., powd., dms., 100-lb. lots or more, frt. alld lb. 2.40 • —
Cajuput oil, native, cns. lb 1.75 2.00
Redist. USP cns lb 1.90 2.10
Calamine, USP dms. lb. .34 —
Calamus oil, bots. lb. 12.00 -20.00
Calciferol, cryst., 10-kilo or more lots, works gram. .54 • —
1-10 kilo lots gram. .55 • —
Calciferol, in edible oil (see Viosterol).
Calcium p-aminosalicylate trihydrate, fib dms., 100 lbs. or more frt adjusted lb 3.10 • —
Calcium bromide, NF, jars, 100 lbs. or more lb. 1.10 • —
Calcium carbide, standard generator size, 600-lb. dms., c.l., dlvd ton. 149.00 • —
Calcium carbonate, nat., dry-grd., air floated, 325 mesh, bgs. c.l. works ton. 10.50 • —
Chalk, whiting, 325 mesh, bgs., c.l., works ton. 32.00 -34.00
water-grd., ½ to 10 microns, bgs., c.l., works ton. 30.00 • —
10 to 20 microns, bgs., c.l., works ton. 17.00 -18.00
Precip., dense, bgs., c.l., works. ton. 30.00 -38.50
bgs. c.l., works ton. 45 00 -53.50
medium bgs. c.l., works ton. 38.00 —
bgs., l.c.l. works ton. 48.00 -53.00
Surface treated, bgs., c.l., works. ton. 42.00 -44.00
bgs., l.c.l., works ton. 57.00 -59.00
ultrafine, bgs., c.l., works. ton. 117.50 167.50
bgs., l.c.l., works ton. 137.50 -187.50
Calcium chloride, conc., flake or pellet, 94-97%, paper bgs., c.l., works, frt. equald. ton. 39.30 • —
Flake, 77-80%, paper bgs., c.l., works, frt. equald ton. 32.00 • —
Liquor, 40%, tanks, frt equald. ton. 12.50 • —
Powd., 77% min., paper bgs., c.l., works, frt. equald ton. 38.00 • —
Purit., gran., dms. lb .27 —
Solid, 73-75%, dms., c.l., frt. equald ton. 30.50 • —
dms., l.c.l. works frt. equald. ton. 36 00 -73.00
USP gran. dms. lb. .32 • —
Calcium chromate, bgs., dlvd lb .37 • —
Calcium cyclamate, 100-lb dms lb. 1.95 • —
Calcium gluconate, USP, AA grade, 100-lb. dm., ton lb. 73½ • —
USP powd. 100-lb dm., ton lb. 66½ • —
Calcium hydride, lump, dms. works. lb. 2.20 3.00
Calcium hypochlorite, high test, gran., 45-lb. cs., dlvd. E. of Rockies cs. 27.50 • —
100-lb. dms., same basis dm. 39.50 • —
Calcium hypophosphite, dms., 1,000-lb. lots lb. 1.28 • —
Calcium iodide, 25-lb. jars, works. lb. 4.27 • —
Calcium lactate, NF, dms., f.o.b. works lb. .43 • .46
Calcium mandelate, USP, 150-lb. dm., works lb. 3.25 • —
Calcium naphthenate, liq., 4% Ca., dms., frt equald lb. .30 • —
Calcium pantothenate, USP, 1 kilo or more kilo. 20.00 • —
Calcium para-aminosalicylate (see Calcium p-aminosalicylate).
Calcium phenosulfonate, dms lb. 1.24 1.25
Calcium phosphate, dibasic, USP, dihydrate, bgs., c.l., frt. equald 100 lbs. 8.25 • —
Feed grade, 18½% P, bgs., c.l., t.l., Bonnie, Fla., frt. equald ton. 81.00 • —
bgs. c.l., t.l., f.o.b Texas City works ton 75.50 • —
Feed grade, 21% P., bgs., c.l., t.l., frt. equald ton. 97.65 • —
bgs., l.c.l. frt equald ton. 107.65 • —
Prices of calcium phosphate dibasic in bulk $3 per ton less than bgs., c.l., prices.
Monobasic, bgs., 10,000-lb. lots, frt. equald 100 lbs. 7.45 • —
bgs., smaller lots, same basis. 100 lbs. 7.95 • —
Tribasic, NF, precip., bgs., c.l., works, frt. equald 100 lbs. 9.25 • —
bgs., l.c.l., frt. equald 100 lbs. 10.00 • —
Calcium propionate, any quantity, dms., dlvd. E. of Rockies. lb. .34½ —
Prices W. of Rockies 3c. per lb. more.
Calcium phytate, bgs., 50 lbs. or more f.o.b. warehouse N Y lb. .39 • —
Calcium resinate, precip., dms., frt. alld., works lb. .45 • —
Calcium silicate, hydrated, bgs., c.l., works lb. .06 • —
bgs., l.c.l., works lb. .06½ —
Calcium silicate paint grade (see Wollastonite).
Calcium stearate, ctns., c.l. lb. .39 • —
ctns., l.c.l. lb. .40 • .44
Calomel, NF mild, powd., dms., 100-lbs., f.o.b. works lb. 4.32 • —
NF mild, precip., dms., 100-lbs., f.o.b. works lb. 5.67 • —
Camphene, 46° m.p., dms incl., c.l., works lb. .15 • —
dms. incl., l.c.l., same basis lb. .16½ —
tanks, same basis lb. .12½ —
Camphene, chlorinated, 67-69% (see Toxaphene)
Camphor, monobromated, NF, dms., kgs lb. 3.63 3.70
Camphor, syn., tech., 1 bbl. or more, lb. .45 • —
USP, powd., bbls., 1,000-lb. lots lb. .56 • —
bbls., smaller lots lb. .57 • —
tablets, ctns., 1,000-lb. lots. lb. .80 • —
ctns., 500-lb. lots lb. .81 • —
ctns., smaller lots lb. .82 • —
Camphor oil, sassafrassy, dms. lb. .35 • .55
White, dms. lb. .26 • .50
Cananga oil, native, cns. lb. 5.00 6.50
Rectified, cns. lb. 7.25 -10.00
Candelilla wax, crude, bgs. lb. .57 • .58
Refd., pure, bgs lb. .62 • .63
Powdered Candelilla wax 20 to 100 mesh, 8c. higher.
Cantharides, Chinese, cs. lb. 1.00 • —
powd., bgs. lb. 1.15 • —
Russian, bgs. lb. 2.00 2.15
powd., bgs. lb. 2.15 2.30
Capric acid, dms lb. .27½ - .29¾
tanks lb. .24¾ —
Caprolactam, monomer, flake, bgs., c.l., t.l., f.o.b. frt. equald. lb. .49 • —
bgs., l.c.l., l.t.l., same basis lb. .54 • —
molten, tanks, same basis lb. .46 • .462
Caprylic alcohol, 85% dms., c.l., t.l., works lb. .19 • —
dms., l.t.l., same basis lb. .19½ —
tanks, frt. equald. lb. .16½ —
Sec., 92-99%, dms., c.l., f.o.b. works lb. .22 • —
dms., l.c.l., f.o.b. works lb. .23 • —
tanks, f.o.b. works lb. .19½ —
Caprylic acid, dms lb. .27¼ - .29¾
tanks lb. .24¾ —
Capsicum (see Pepper red)
Capsicum oil (see Capsicum oleoresin).
Capsicum oleoresin, NF, from dom. pepper, dms lb. 4.00 • —
NF, from African pepper, dms. lb. 4.50 • —
Caraway oil, NF, dms lb. 4.25 • 4.50
Caraway seed, Danish, bgs. lb. .16 —
Dutch, bgs. lb. .16¼ —
Carbazole, 97%, bbls, ton lots, works lb. 1.05 • —
Carbon black, channel, rubber beads, bulk, c.l., works lb. .08 • —
bgs., c.l., works lb. .08½ • —
bgs., l.c.l. works lb. .16¼ • —
Furnace, fast extruding, bgs., c.l., works lb. .08¾ —
ctns, l.c.l., whse lb. .13½ —
high abrasion, bulk, c.l., works. lb. .07¼ —
bgs., c.l., works lb. .07¾ —
bgs., l.c.l., dlvd. or whse lb. .14½ —
high modulus, bgs., c.l., works lb. .08¼ —
ctns., l.c.l., whse lb. .13 • —
semi-reinforcing, bgs., c.l., works. lb. .05¾ —
bgs., ctns., l.c.l., whse lb. .12½ —
pigment, high color, beads, ctns., c.l., works lb. .78 • —
ctns., l.c.l., dlvd. or whse lb. .87 • —
medium color, uncompressed, bgs., c.l., works lb. .14 • —
bgs., l.c.l., dlvd. or whse lb. .22½ —
Carbon dioxide, indust., wholesale, bulk, 30,000-2,999,999 lbs., dlvd. Metropolitan areas, E ton. 60.00 -115.00
bulk, 3,000,000 lbs. or more, dlvd Metropolitan areas, E ton. 55.00 • —
Solid, bulk, wholesale, works ton. 85.00 • —
Carbon disulfide, 55-gal. dms., c.l., works, frt. equald to competitive points lb. .071 • —
55-gal. dms., l.c.l., same basis lb. .086 - .091
5-gal. dms., 30 dms. to c.l., same basis lb. .131 • —
5-gal. dms., less than 30 dms., same basis lb. .161 • —
tanks, f.o.b. works lb. .0450 —
Carbon tetrachloride, CP, consumers, dms. c.l., frt. alld. lb. .12¾ —
dms., l.c.l., frt. alld. lb. .15¼ —
Tech., consumers, dms., c.l., t.l., frt. alld lb. .11¾ —
dms., l.c.l., t.t.l. frt. alld lb. .14¼ —
tanks, frt alld lb. .10¾ - .11¼
Carboxymethyl cellulose (see CMC).
Carbromal, NF, dms., 100-lb lots, works lb 4.00 4.25
dms. smaller lots, works lb 4.10 4.75
Cardamom oil, NF, bots. lb. 40.00 -43.00
Cardamom seed, bleached "A" lb. 3.20 • —
Bleached "B" lb. 3.10 • —
Decorticated Alleppey, cs. lb. 2.60 • —
Guatemala, cs. lb. 2.60 • —
Green, Alleppey, bgs. lb. 1.95 • —
Ceylon, bgs. lb. 2.00 • —
Carmine No. 40, NF, bulk, 100-lb. lots or more, dlvd. lb. 16.80 • —
bulk, smaller lots, dlvd. lb. 16.90 -17.30
Carnauba wax, chalky, bgs., ton lots. lb. .66 - Nom.
North Country, No. 2, crude, bgs., ton lots lb. .73 Nom.
refd., pure, ton lots lb. .77 • .79
North Country, No. 3, Ceara, crude, ton lots lb. .61 • .62
North Country, No. 3, Parnahyba, crude, ton lots lb. .64 • .65
No. 3, refd., pure, bgs., ton lots. lb. .68 • .70
No. 1, Ceara, yellow, bgs., ton lots. lb. .91 • .95
Parnahyba, yellow, bgs., ton lots. lb. .94 • .96
Powdered carnauba wax, 20 to 100 mesh 8c. per lb. higher.
Carotene, tech., 1,350,000 A units per gram tins, 5-10 kilo lots, dlvd gram. .20½ —
in carrot oil, 5,000,000 to 8,000,000 A units per lb., dms., works million units. .12 • —
USP, microcrystalline in oil, 400,000 A units per gram., dms., dlvd million units. .144 • —
b-Carotene, in vegetable oil, semi-solid suspension, 400,000 A units per gram cns. kilo. 57.60 • —
b-Carotene, liquid in vegetable oil, 500,000 A units per gram, cns kilo. 72.00 • —
Pure, cryst., 1,600,000 to 1,670,000 A units per gram, cns. kilo. 240.00 • —
Carvol, bots. lb. 5.00 5.40
Cascara sagrada bark, bulk lb. .32 • —
Casein, dom., edible, acid precip., 30 mesh, bgs., 10,000-lb. lots or more, works lb. .56 • —
80 mesh, bgs., 10,000-lb. lots or more, works lb. .64 • —
Imp., inedible, acid-precip., grd., Argentine, bgs., c.l., ex-dock Eastern seaports lb. .18¾ - .19¼
Australian, bgs., c.l., same basis lb. .21¼ —
New Zealand, same basis lb. .24 • .25
Cashewnut shell liquid, treated, dms., c.l., Newark, N.J lb. .24 • —
dms. ton lots, same basis lb. .25 • —
t.w., same basis lb. .22½ —
Cassella acid, dms. frt. alld., 100% basis lb. 1.44 1.75
Cassia oil, redist., USP, cns. lb. 6.50 - 8.00
Cassia, Padang, "A," bls. lb. .28½ —
"B," bls. lb. .27½ —
"C," bls. lb. .25½ —
Korintje "A," bls. lb. .27½ —
"B," bls. lb. .26½ —
"C," bls. lb. .25¼ —
Castor oil, dom., blown, dms., c.l. lb. .2550 —
dms. l.c.l. lb. .2650 —
dehydrated, bodied, dms., c.l. lb. .2700 —
dms. l.c.l. lb. .2850 —
tanks lb. .2500 —
dehydrated, unbodied, dms., c.l. lb. .2500 —
dms., l.c.l. lb. .2660 —
tanks lb. .2360 —
hydrogenated, bgs., c.l. lb. .2475 —
bgs., ton lots lb. .2875 —
bgs., l.c.l., dlvd lb. .3075 —
raw, No. 1, dms., c.l. lb. .2200 —
dms., l.c.l. lb. .2300 —
tanks lb. .2000 —
No. 3, tech., dms., c.l. lb. .2125 —
dms., c.l., lb. .2225 —
tanks lb. .1925 —
refd., deod., dms., c.l. lb. .2450 —
dms., l.c.l. lb. .2750 —
tanks lb. .2450 —
USP, dms., c.l. lb. .2350 —
dms., l.c.l lb. .2450 —
tanks lb. .2150 —
Imported, No. 1, Braz., tanks, New York lb. .17½ —
No. 3, tanks, same basis lb. .17 • —
Sulfonated, 50%, dms., works lb. .15 • .15½
75% dms. works lb. .19 • .19½
Castor oil acids, dehydrated, dms. lb. .41¼ - .43¼
Split, dms. lb. .33¾ - .34¾
Castor pomace, bgs., c.l., works ton. 35.00 • —
Castoreum nat., cns. lb. 5.25 • —
Syn., cns. lb. 9.00 • —
Catechol, CP, cryst., fib., dms., works lb. 2.17½ —
Resub., dms., works lb. 4.29½ —
Catnip leaves, Southern, bls. lb. Nominal.
Caustic potash (see Potash caustic).
Caustic soda (see Soda, caustic).
Cedarleaf oil, USP XIII cns., dms. lb. 3.50 - 4.00
Cedarwood oil, cns., dms. lb. 1.25 • —
Celery seed oil lb. 12.00 • —
Celery seed, French, bgs. lb. .35 • —
Indian, bgs. lb. .26 • —
Cellulose acetate, flake, powd., bgs., t.l., dlvd E lb. .36 • .51
Cellulose acetate-butyrate, powd., 17% butyryl content, bgs., dlvd. E lb. .545 - .555
27% butyryl content, bgs. dlvd. E lb. .595 - .605
38% butyryl content, bgs., dlvd. E lb. .545 - .555
38% butyryl content, half-second, bgs., dlvd. E. lb. .545 - .555
50% butyryl content, bgs. dlvd. E lb. .585 - .595
Cellulose gum, methyl (see Methyl Cellulose).
Cellulose gum, pure, high vis., bgs., 23,000-lb. lots or more works frt alld lb. .57 • —
bgs., smaller lots, same basis lb. .59 • —
standard, low or medium vis., bgs., c.l., t.l., frt. alld. E lb. .57 • —
bgs., ton lots, frt. alld. E lb. .59 • —
(Cellulose gum prices 1c. per lb. higher in west.)
Cerium hydrate, 74% CeO, fib. dms., 100-lb. lots or more lb. 1.40 • —
77% CeO, fib. dms., 100-lb. lots or more lb. 1.74 • —
Cerium oxalate (see Rare earth oxalate)
Cerium oxide, optical grade, bgs., 50-lb lots or more, dlvd. lb 1.85 - 1.90
bgs., smaller lots, dlvd. lb 2.15 • —
Cetyl alcohol, NF, fib cns., c.l., t.l., dlvd. E lb. .41½ —
fib. cns., l.c.l., same basis lb. .43½ —
tanks, same basis lb. .39 • —
Extra, cns., c.l., t.l., dlvd. E lb. .48½ —
fib. cns., l.c.l., same basis lb. .50½ —
tanks, same basis lb. .46 • —
Chalk (see Calcium carbonate)
Chamomile flowers, Hungarian, lb. .95 - 1.10
Roman, cs. lb. 1.75 - 2.00
Chamomile oil, blue Hungarian bots lb. 350.00 • —



**CYANAMID "SPLITS OFF" THE DIFFICULTIES.** Cyanamid Fine Chemicals Department has become an increasingly important element in the marketing plans of pharmaceutical manufacturers. Assurance of uniformity and top quality in materials helps protect against the possibility of variations in properties and potency, or instability in the final formulation. Our clients appreciate and look for the extra security which comes from Cyanamid reliability... just as they frequently seek the help we can give in any phase of production, through our complete custom synthesis service. Vitamins, sulfonamides, antibiotics, non-inhibitory intrinsic factor concentrate, other bulk pharmaceuticals and cosmetic chemicals. Complete custom synthesis service.

CYANAMID | AMERICAN CYANAMID COMPANY · FINE CHEMICALS DEPARTMENT/Pearl River, New York.

## Charcoal—Defluorinated Phosphate

Charcoal, activated NF, fib, dms., c.l., works lb. .34 - —
fib, dms., 5-ton lots, works lb. .35 - .35½
fib dms., smaller lots, works lb. .36 - .59
Charcoal, black (see Charcoal, activated).
Charcoal, bone (see Bone black).
Charcoal hardwood, lump, bulk c.l., f.o.b. plant ton 55.00 - —
briquets, bulk, c.l., f.o.b. plant ton 80.00 - —
5-lb paper bgs., c.l., same basis ton 106.00 - —
20-lb paper bgs., c.l., f.o.b. plant, ton 90.00 - —
40-lb paper bgs c.l. same basis ton 86.00 - —
Chenopodium oil, NF, cns lb. 4.75 - 5.00
Chicago acid paste bbls. frt alld. lb. 3.21 - —
Chinawood oil (see Tung oil).
Chloral hydrate, USP, jars, 1,000-lb. lots lb. 1.00 - —
jars, 500-lb lots lb 1.03 - —
jars, 100-lb. lots or less lb 1.05 - —
Chlordan, agricultural dms., c.l., frt alld lb. .65 - —
dms. t.c.l. 5,000-10,000-lb. lots, frt alld lb. 66 - —
clarified, dms., c.l., frt. alld lb. .69 - —
dms t.c.l. 5,000-10,000-lb. lots, frt alld lb. .70 - —
Chlorinated paraffin, 40%, dms., c.l., frt alld lb. .15 - —
dms. t.c.l. 10 dms or more, same basis lb. .16 - —
70%, dms., c.l., same basis lb. .18½ - —
dms. t.c.l. 10 dms or more, same basis lb. .19½ - —
Chlorinated rubber, 5, 10, 20 cps., ctns., c.l. works lb. .60 - —
ctns., t.c.l. works lb. .61 - —
125 cps. ctns. c.l., works lb. .70 - —
300 cps. ctns. c.l., works lb. .80 - —
Chlorine, liq., cyls., c.l., works, frt. equald lb. .11 - —
cyls., t.c.l., Metropolitan area, same basis lb. .12½ - .13¾
tanks, single units, works, frt. equald 100 lbs. 3.25 - —
tanks, multiple units, 5 cars, works, frt. equald, same basis 100 lbs. 4.15 - —
tanks, multiple units, 4 cars, same basis 100 lbs. 4.35 - —
tanks, multiple units, 2 cars, same basis 100 lbs. 5.35 - 5.85
tanks, multiple units, 1 car, same basis 100 lbs. 6.25 - 7.25
Chloroacetic acid mono, flake, 99%, purif. dms., c.l lb. .23½ - .25½
dms. t.c.l. .24½ - —
Tech., flake, 96-97%, dms., c.l., frt. equald lb. .19 - —
dms. t.c.l., frt equald lb. .20 - —
2-Chloro-4-aminotoluene, tech., liq., dms., frt. alld lb 1.03 - —
4-Chloro-2-aminotoluene, fused, bbls. lb 1.38 - —
6-Chloro-2-aminotoluene, tech., liq., dms. frt. alld lb. .66 - —
m-Chloroaniline dms., c.l., frt. alld. lb. .75 - —
dms., t.c.l., same basis lb .77 - —
tanks, same basis lb .73 - —
o-Chloroaniline dms., c.l., frt. alld. lb. .52 - —
dms., t.c.l., same basis lb .54 - —
tanks, same basis lb .50 - —
p-Chloroaniline dms., c.l., frt. alld. lb. .77 - —
dms., t.c.l., same basis lb. .79 - —
o-Chlorobenzaldehyde, dms., t.l., works lb 1.05 - —
dms., t.t.l., same basis lb 1.20 - —
p-Chlorobenzaldehyde, dms., t.c.l., works lb 1.95 - —
o-Chlorobenzoic acid, fib dms., t.l., works lb 1.10 - —
fib, dms., smaller lots, works lb 1.25 - —
p-Chlorobenzoic acid, fib, dms., 2,000-lbs. or more, works, lb 2.25 - —
fib, dms., less than 2,000-lbs., same basis lb 2.30 - —
Chloroform, tech., dms., c.l. dlvd. F lb. .18 - —
dms., t.c.l., same basis lb. .19 - —
tanks same basis lb. .17 - —
USP, dms., c.l., dlvd lb. .27 - —
dms., t.c.l., dlvd lb. .30 - —
tanks, minimum 4,000 gals. dlvd. lb. .25 - —
2-Chloro-4-nitroaniline, paste, dlvd. E., 100% basis lb. .90 - —
Powd., dlvd. E., 100% basis lb. 1.00 - —
4-Chloro-2-nitroaniline, powd. dlvd. E lb. .86 - —
4-Chloro-2-nitrophenol, tech. paste, dms. frt. alld lb. .75 - —
4-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld lb. .99 - —
6-Chloro-2-nitrotoluene, tech., solid, dms., frt. alld lb. .25 - —
o-Chlorophenol, dms., c.l., frt. equald lb. .37 - —
dms t.c.l. same basis lb. .38 - —
p-Chlorophenol, dms., c.l., frt equald lb. .37 - —
dms t.c.l. same basis lb. .38 - —
Chloropicrin, comi., cyls., 180 lbs., frt alld lb 1.07 - —
cyls., 100 lbs., same basis lb 1.08 - —
cyls., 50 lbs., same basis lb 1.14 - —
Chlorosulfonic acid, dms., c.l., frt. equald lb .0465- —
dms., t.c.l. frt equald lb. .0515- —
tanks, frt equald lb. .0415- —
Chlorosulfonic acid, in stainless steel dms ½c per lb higher
o-Chlorotoluene, tech., dms., t.l., works lb. .37 - —
dms. t.c.l., t.t.l., same basis lb. .38 - —
Choline bitartrate, 100-lb. dms., frt. equald lb. 1.25 - —
Choline chloride, 100-lb dms., frt. equald lb. 1.25 - —
Choline dihydrogen citrate, 100-lb. dms., frt. equald lb. 1.25 - —
Chrome green CP dark, light medium blue content, 1.15%, bbls. dlvd E of Rockies, lb. .43 - —
blue content, 16-30%, bbls., same basis lb. .44 - —
41-45%, bbls., same basis, lb. .44 - —
blue content, 45-49%, bbls., same basis lb. .45 - —
reduced color 25%, bbls., same basis lb. .20 - —
Chrome green prices 1c. higher W of Rockies.

Chrome orange, CP, bbls., dlvd. E of Rockies lb. .35 - —
Chrome orange prices 1c. higher W of Rockies.
Chrome yellow, CP, bbls., dlvd. E. of Rockies lb. .35 - —
Chrome yellow price 1c. higher W of Rockies.
Chromic acid, 99¾%, dms., c.l., works, frt. equald lb. .29½ - —
dms., t.c.l., dlvd, N. Y. Metropolitan area lb. .30 - .31
Chromic acid, NF (see Chromium trioxide).
Chromium acetate, soln., 7½%, dms., 500-2,000-lb. lots, works, lb. .10 - —
Chromium fluoride bbls., works lb. .51 - .52
Chromium oxide, hydrated, bbls., fib dms. c.l. frt .alld. lb. 1.20 - —
Pure, bgs., c.l., frt alld lb. .44½ - —
bgs., t.c.l., same basis lb. .45¼ - —
Chromium trioxide, NF, bots lb. 1.15 - —
Cinchona bark, NF, red, broken, bgs lb .25 - —
NF, yellow broken, bgs lb. .35 - .40
Cinnamic acid, refd., bots lb. 2.50 3.50
Cinnamic alcohol, bots lb. 1.50 - 1.60
Cinnamic aldehyde dms. lb. .80 - 1.00
Cinnamon, Ceylon, No. 2, bgs. lb. .55 - —
Ceylon, No. "0000," bgs. lb. .64 - —
Cinnamon bark oil, bots lb. 55.00 -74.00
Cinnamon leaf oil, crude, dms lb. 1.60 2.00
USP (Cassia), cns., dms lb. 8.50 -13.50
Citral, CP, bots lb. 4.65 - 5.55
Extra, bots lb. 5.00 - 7.25
Syn., dms. lb. 6.10 - 6.65
Citric acid USP anhyd., fine gran., bgs., dms., c.l lb. .29½ - .30
bgs. dms. 10,000-lb. lots, 1 shipt lb. .30 .30½
bgs., dms. smaller lots lb. .30½ - .31
USP, hydrous, fine gran., bgs., dms., c.l lb. .27½ - .28½
bgs. dms., 10,000-lb. lots, 1 shipt lb. .28 - .28½
bgs., dms. smaller lots lb. .29 .29½
Powdered citric acid ½c. per lb. higher.
Citronella oil, Ceylon, dms. lb. 1.05 - —
Java-type, dms. lb. .90 - 1.00
Citronellol bots. dms. lb 1.90 2.50
Synthetic, dms. lb. 1.70 - —
Civet, artif., bots lb. 13.75 -15.00
Nat. bots oz. 8.50 -15.00
Clay, ball, dom., airfloated, bgs., c.l., Tenn ton. 17.50 -21.50
crushed shed moisture, bulk, c.l., Tenn ton 8.00 -11.25
imp. airfloated, bgs., c.l., Atl port net-ton 43.00 -47.00
lump, bulk, Atl port net-ton 31.50 -37.50
Clay, China, dom., dry-grd., airfloated, 99%, 325 mesh, Georgia bgs., c.l., works, ton 11.00 -17.00
Georgia bgs. t.c.l., works ton 13.50 -22.50
Imp., white, lump, bulk, c.l., ex-dock, Philadelphia, Portland, Me long-ton 23.00 -35.00
white, powd. bgs. c.l. ex dock net-ton 50.00 —
bgs., t.c.l. ex whse net-ton 60.00 -70.00
Cleaner's naphtha, petroleum, 105°F Flash, tankcars New Jersey and New York gal. 18 —
Group 3 gal. .12375 —
Houston, Texas gal. .145 —
140 F Flash, tankcars, New Jersey or New York gal. .205 - —
Group 3 gal. .154 - —
Houston Texas gal. .17 - —
Cleve's acid tech., mixed, solid, dms., frt alld lb 1.05 - —
1.6 tech., solid dms frt. alld lb 77 - —
1.7 tech., dms. frt allll, lb. 2.42 - —
Clove bud oil, USP, dms. lb. 2.65 - —
Cloves, Madagascar, bgs. lb. .38 - .38½
Zanzibar, bgs. lb. .39 - .42
Clove leaf oil, crude, dms lb. 1.10 - —
CMC, crude, 96.4% low or medium vis bgs., 23,000 lbs., dlvd. E., 100% basis lb. .40 - —
96.4% low, or medium vis., bgs., less than 23,000 lbs., dlvd. E., 100% basis lb. .42 - .46
65% low or medium vis. bgs., c.l., dlvd. E 100% basis lb. .40 - —
t.c.l., dlvd E., 100% basis lb. .42 - 1.00
CMC, purif, high vis. (see Cellulose gum).
CMC prices W. of the Rockies are ½c. per lb. higher and are on a dlvd. basis.
Coaltar, crude resale for soln., tanks, works gal. .17 - —
Refd., resale, indust., dms., c.l., ex whse gal. .35 - —
dms., t.c.l., ex whse gal. .39 - —
tanks works gal. 20½ - —
Coaltar pitch, aluminum, bulk, Works ton. 42.00 - —
Carbon, bulk works ton. 42.00 - —
Indust., bulk, works ton. 44.00 - —
Core bulk works ton 40.50 - —
Fiber bulk works ton 48.00 - —
Roofing, 140-155 F., Federal Specification RP 381, Type I tanks, works ton. 41.00 - —
Cobalt acetate, 23.6% Co., dms. dlvd lb 1.04 - —
Cobalt blue, genuine, 250 lb bbls. dlvd E of Rockies lb 4.90 - —
Cobalt blue prices 1c. higher W. of Rockies
Cobalt blue (imitation (see Ultramarine blue)
Cobalt carbonate, 48% Co., powd., bgs., dlvd lb. 1.45 - —
Cobalt chloride, 24.2% Co., dms., dlvd lb. .93 - —
Cobalt hydrate, 60-61% Co., dms., dlvd lb. 1.97 - —
Cobalt linoleate, fused 8½% Co., dms lb. .71½ - —
Liq., 6% Co., dms lb. .57½ - —
Cobalt metal, 99% dms., f.o.b. carrier lb. 1.50 - —
Cobalt naphthenate liq. 6% Co., dms, dlvd lb. .48¾ - —
Cobalt nitrate 20.1% Co. bbls. dlvd. lb. .75 - —
Cobalt oxide, black, ceramic grade, 72½-73½% Co., kgs., dlvd E of Mississippi R. lb 1.15 - —
70-71% Co kgs. same basis lb 1.12 - —
Cobalt oxide prices W of Mississippi R. 3c. per pound higher
Cobalt phosphate powd., 32.1% Co., dms., dlvd lb. 1.35 - —
Cobalt resinate, fused, 3% Co. dms lb. .38½ - —
Cobalt sulfate, cryst., 21% Co., dms., dlvd lb. .64 - —
Monohydrated, 23% Co., dms., dlvd lb 1.09 - —
Cobalt tallate 6% Co., dms. dlvd. lb. .44 - —
Cocaine, USP cns., 100-oz lots, f.o.b works oz. 17.50 - —

Cocaine hydrochloride, cns., 100-oz. lots f.o.b. works oz. 13.75 - —
Cocillana bark, bls. lb. .20 - .22
Cocoa butter, bgs. lb. .55 - .56
Coconut oil, crude, tanks, New York, lb. .12½ - —
tanks, Pac. coast lb. .11¾ - —
Refd., deodorized, dms., N.Y. lb. .18½ - .19½
Coconut acid, oil, dist. dms. lb. .21½ - .24
tanks lb. .19 - —
double dist. (stripped), dms. lb. .22½ - .25
tanks lb. .20 - —
Cod oil, dms., spot lb. .08¼ - .08⅜
Codeine, NF, cns., 100-oz. lots oz. 13.25 - —
Codeine hydrochloride cns., 100-oz. lots oz. 11.75 - —
Codeine phosphate, USP, cns., 100-oz. lots oz. 10.25 - —
Codeine sulfate, USP cns., 100-oz. lots oz. 10.75 - —
Codliver oil, USP, dms gal. 1.40 - 1.70
Cohosh root, black, bls lb. .20 - .25
Blue, bls lb .20 - .25
Colchicine, USP, bots. 27.50 -29.00
Colchicum root, bls lb. .35 - .45
Colchicum seed, bgs. lb. .85 - .90
Collodion, USP, dms. lb. .32½ - —
USP flexible dms lb. .34 - —
Colocynth pulp, bls. lb. .75 - —
Colombo root, bls lb. .16 - .18
Condurango bark bls lb. .18 - .20
Congo copal gum, No. 1, bgs. lb. .26 - .27
No. 2, bgs. lb. .30 - .35
No. 3, bgs. lb. .22 - .25
Copaiba balsam, cns., dms. lb. .85 - .95
Copaiba oil, cns lb. 1.35 - 2.00
Copper acetate, bbls., c.l., works, lb. .53 - —
bbls., t.c.l., works lb. .54 - —
Copper carbonate, 55%, dark dense, c.l., works lb. .3545- —
bgs., t.c.l., works lb. .3695- —
Copper chloride, cupric, anhyd., dms., works lb. .44½ - .45
cryst., dihydrate, dms., works, lb. .30¾ - .31¼
cryst., dried, dms., works lb. .38¾ - .39¼
cuprous, dms., works lb. .3995- .4295
Copper cyanide tech., dms., 20,000-lb lots or more lb. .609 - —
dms., 1,000-lb lots or more lb. .619 - —
dms., smaller lots lb. .639 - .65
Copper gluconate dms lb. 3.20 - —
Copper hydrate dry, dms, c.l., frt. E of Miss lb. .52½ - —
dms., t.c.l., same basis lb. .53 - —
Copper metal, electrolytic dlvd. Valley, basis lb. .31 - —
Copper naphthenate liq. 8% Cu, dms frt alld lb. .26½ - —
Copper nitrate, tech., cryst., dms., works lb. .30¾ .32¾
Copper oleate, solid, 9% Cu, dms., works lb. .45 - —
Copper oxide, black, bbls. 100-5,000-lb. lots, works lb. .47 - —
red., 97%, USN Type I, bbls., 100-5,000 lbs. lots lb. .47½ - —
90% USN Type II, bbls. 100-5,000-lb. lots or more, works lb. .45½ - —
Copper quinolinolate, 18% Cu, dms., ton lots lb. 4.25 - —
10% active quinolinolate dms lb. 1.14 - 1.15
Copper resinate, precip., dms., frt. alld lb. .47 - —
Copper sulfate, CP, gran., dms., works lb. .1885- —
Cryst., 99%, bgs., c.l., works, 100 lbs. 12.50 - —
bgs., t.c.l., works 100 lbs. 13.00 -15.50
Monohydrated, 35%, dms., c.l., works 100 lbs. 23.35 - —
dms., t.c.l., works 100 lbs. 24.10 - —
Tribasic, distributors, 50-lb. dms., c.l., works 100 lbs. 28.60 - —
bgs., t.c.l., works 100 lbs. 30.10 - —
Copper undecylenate dms lb 2.75 - —
Copra, Atl., Gulf ports, c.i.f. ton. 160.00 - —
Pac. ports, c.i.f. ton. 155.00 - —
Coriander oil, USP, bots lb. 6.25 - —
Coriander seed, Moroccan, bgs. lb. .19 - —
Rumanian, bgs. lb. .14 - —
Yugoslavian bgs lb. .08½ - —
Corn oil, crude, tanks, works lb. .18 - —
Foots, (soapstock acid 95%) tanks, New York lb. .06½ - —
Refd., salad, dms. lb. .2373- .24
tanks lb. .2173- —
Corn oil, acid, drums, lb. .16 - .18½
tanks lb. .13½ - —
Corn sugar, tanners chipped, paper bgs., c.l., 60,000 lbs. min. 100 lbs. 7.30 - —
paper bgs., t.c.l 100 lbs. 7.45 - —
Corn syrup, 43° Be., tanks, dlvd. N.Y. 100 lbs. 6.30 - —
non-ret. dms., c.l., same basis, 100 lbs. 7.23 - —
Corrosive sublimate (see Mercuric chloride).
Cortisone acetate, USP bots., kilo or more gram .85 - .90
Costus oil, bots oz. 6.00 - —
Cottonseed meal, 41%, bgs., Memphis ton. 65.00 Nom.
Cottonseed oil, crude, tanks, South, East lb. .13¾ - —
tanks, Valley lb. .13¾ - —
tanks, Tex., Waco lb. .13⅜ - —
Foots (soapstock, acid 95%), New York, tanks lb. .04½ - —
Refd., salad, dms. lb. .19⅜ - .19⅝
tanks lb. .17 - .17⅛
Cottonseed oil acids, dist., dms. lb. .16 - .18½
tanks lb. .13½ - —
Coumarin, NF, cryst., dms. lb. 3.20 - 3.30
Cramp bark, NF, bls. lb. .90 - 1.00
Cream of tartar (see Potassium bitartrate).
Creosote carbonate, NF, bots, chys., lb. 3.05 - 3.26
Creosote, coaltar, crude, tanks, works, frt. adjusted gal. .24 - —
Crude, soln 80%, tanks, works, gal. .226 - —
Refd., dms., c.l., works gal. .50 - —
dms., t.c.l., same basis gal. 62 - —
tanks, same basis gal. 38 - —
West Coast creosote prices computed on a basis of 24c. per gallon for straight oil and 20c. per gallon for coaltar.
Creosote, beechwood, chys., dms., f.o.b. works, dlvd. in Metropolitan area lb. 1.72 - 1.77
Hardwood, NF chys. dms., same basis lb. 1.42 - 1.47
Pinewood, dms. incl. c.l., works, lb. .0611- —
dms. incl., t.c.l., works lb. .0684- —
dms. incl., t.c.l. ex whse, New York lb. .0795- —
tanks, works lb. .0511- —
Creosote oil (see Creosote coaltar).
Cresol, tech., 50% below 204°C., dry above 207°C., wide distillation range, non-ret. dms., c.l., frt. alld lb. .16¼ - —
non-ret. dms., t.c.l., same basis lb. .17½ - —
tanks, same basis lb. .145 - —
USP, 50% 204°C., dry above 207°C., wide distillation range, non-ret, dms., c.l., same lb. .18 - —
non-ret. dms., t.c.l., same basis, lb. .19 - —
tanks, same basis lb. .16 - —
m-Cresol, 95-98% dms. c.l., works, lb. .60 - —
dms., t.c.l., works lb. .61 - —

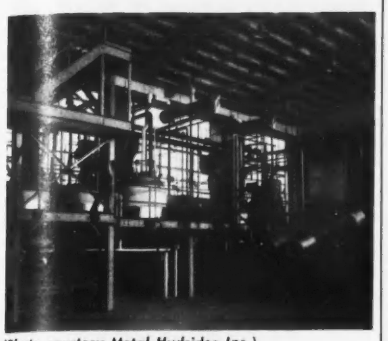
m-p-Cresol, 5-95% 3°C., dms., c.l., frt. equald lb. .18 - —
dms., t.c.l., same basis lb. .19 - —
tanks, same basis lb. .16 - —
2.97% 2°C, dms., c.l., frt. equald. lb. .22 - —
dms., t.c.l., same basis lb. .23 - —
tanks, same basis lb. .20 - —
o-Cresol, 30.5°C. m.p. and over, ret., dms., c.l., frt. equald lb. .17 - —
ret. dms., t.c.l., same basis lb. .18 - —
tanks, same basis lb. .15 - —
30°-30.49°C. m.p., dms., c.l., frt. equald lb. .16½ - —
ret. dms., t.c.l., same basis lb. .17½ - —
tanks, same basis lb. .14½ - —
29°-29.9°C, m.p., dms., c.l., frt. equald lb. .16 - —
ret. dms., t.c.l., same basis lb. .17 - —
tanks, same basis lb. .14 - —
25°-28°C m.p., dms. c.l., frt. equald lb. .15 - —
ret. dms., t.c.l., same basis lb. .16 - —
tanks, same basis lb. .13 - —
p-Cresol, 98%, dms., c.l., f.o.b., frt. alld. lb. .50 - —
dms., t.c.l., same basis lb. .52 - —
tanks, same basis lb. .45 - —
2,3-Cresotic acid dms., ton lots, works lb. .70 - —
dms., smaller lots, works lb. .72 - —
p-Cresyl methyl ether, cns lb. 1.80 - 2.05
Cresylic acid, coaltar, dom., meta-para content above 25%, resins and tricresyl phosphate grades, dms., c.l., t.l., frt equald gal. 1.35 - —
dms., t.c.l., same basis gal. 1.40 - —
tanks, same basis gal. 1.15 - —
metapara content 25% or less, dms., c.l., t.l., same basis gal. 1.20 - —
dms., t.c.l., same basis gal. 1.25 - —
tanks, frt. equald gal. 1.00 - —
Imp., metapara content 25% or less, f.o.b. works, frt. equald, to competitive points, c.l. gal. 1.15 - —
t.c.l., f.o.b., works gal. 1.20 - —
tanks, same basis gal. 1.00 - —
Crotonaldehyde, 91-93%, dms., t.c.l, works lb. .25 - —
Crotonic acid, 200-lb. dms., c.l., dlvd lb. .49 - —
dms., t.c.l., dlvd lb. .51 - —
Cryolite, nat., indust., bgs., c.l., works 100 lbs. 13.00 - —
bgs., t.c.l., works 100 lbs. 14.25 - —
Cubeb oil, cns lb. 8.50 - 8.75
Cube root, powd., 5% rotenone, bgs., t.l., works lb. .21 - —
bgs. t.t.l. works lb .22 - —
Cubeb berries, NF, bgs. lb. 1.30 - —
Powd., cs. lb. 1.45 - —
Cumene, dms., c.l., works lb. .12 - —
dms., t.c.l., works lb. .14 - —
tanks, works lb. .11 - —
Cumin seed, Iranian, bgs. lb. .18 - —
Turkish, bgs. lb. .18 - —
Cumin seed oil, bots., cns lb. 15.50 -17.00
Cyanamide, fertilizer, mixing grade, 21% N, gran., bgs., Niagara Falls, Ont., contract, ton. 57.00 - —
pulv., 21% N, bgs., works, unit-ton. 2.85 - —
Cyanamide, indust. grade, bgs., c.l., works ton. 75.00 - —
bgs., t.c.l., works ton. 96.00 - —
Indust. grade, 6-16 mesh, dms., c.l., works ton. 120.00 - —
dms. t.c.l., works ton. 140.00 - —
Cyclohexane, 99%, tech., dms., c.l., dlvd. E of Rockies gal. 1.02 - —
dms. t.c.l. same basis gal. 1.10 - —
dms., c.l. dlvd. W of Rockies gal. .77 - —
dms., t.c.l., same basis gal. .85 - —
tanks, works gal. .55 - —
98% tech, 40-dm. lots or more, f.o.b works gal. .56 - —
5-39 dms. same basis gal. .60 - —
tanks, same basis gal. .36 - —
Cyclohexanol, tech., dms., c.l., works, frt. alld, E lb. .30½ - —
dms., t.c.l., works, same basis, lb. .31½ - —
tanks, works, same basis lb. .28 - —
Cyclohexanone, tech., dms., c.l., works lb. .33½ - —
dms., t.c.l., works lb. .34½ - —
tanks, works lb. .31 - —
Cyclohexylamine, tech., dms., c.l., works lb. .49 - —
dms., t.c.l., works lb. .50 - —
tanks, works lb. .47 - —
Cypress oil, bots. lb. 5.30 - —

## D

2,4-D tech., bgs., dms., c.l., works, frt. equald lb. .40 - —
bgs. dms. t.c.l., same basis lb. .45 - .49
2,4-D butyl ester, dms. c.l., works. lb. .43 - —
dms., t.c.l., same basis lb. .48 - .52
tanks, same basis lb. .42 - —
2,4-D isopropyl ester, dms., c.l., works lb. .43 - —
dms., t.c.l., works lb. .48 - .52
tanks, works lb. .42 - —
Dammar gum Batavia, A E, cs lb. No stocks.
East India, Batu, bold, bgs lb. .15½ - .18
nubs and chips, bgs lb. .10 - .11
black, bold, bgs lb. .16 - .18
nubs and chips, bgs lb. .13 - .14½
unscraped bgs lb. .13 - .14½
East India, pale, chips, bgs lb. .16 - .18
pale, nubs, bgs. lb. .20¾ - .24
Siam, cs. lb. .31½ - .34
Singapore, No. 1, bgs. lb. .38 - .44
No. 2, bgs. lb. .29 - .32
dust, bgs. lb. .18 - .20
No. 3, bgs. lb. No stocks.
Dandelion root, bls lb. .35 - .40
DDD, tech., flake, grd., fib. dms., c.l., works lb. .45 - .47
fib. dms., t.c.l., works lb. .46 - .48
DDT, flake or lump, bgs., c.l., dlvd lb. .21 - —
bgs., smaller lots, same basis. lb. .23 - —
fib. dms., c.l., same basis lb. .22 - —
fib. dms., smaller lots, same basis lb. .25 - —
Powdered DDT 1c. per pound higher.
DDVP (see Dimethyl dichlorovinyl phosphate).
i-Decanol, tech., dms., c.l., dlvd. E. lb. .41½ - —
dms., t.c.l., dlvd. E lb. .43½ - .44½
tanks, dlvd. E lb. .37½ - —
Decyl alcohol, mixed isomers, dms., c.l., dlvd lb. .20½ - —
dms., t.c.l., dlvd lb. .22 - —
tanks, dlvd. lb. .18 - —
Perfume grade, bots. lb 1.00 - 2.00
Decyl alcohol normal (see i-Decanol)
Deertongue leaves, bls. lb. .50 - .60
Defluorinated phosphate, feed grade 14% P, paper bgs., c.l., t.l., Tupelo, Miss ton. 52.00 - —
18% P, paper bgs., c.l., Plant City, Fla ton. 61.25 - —
paper bags, c.l., works, Wales, Tenn ton. 66.00 - —
19% P, paper bgs., c.l., t.l., works, Houston, Tex ton. 69.35 - —
Prices of defluorinated phosphate in bulk $3 per ton less than bg. c.l. prices.

# U.S.I. CHEMICAL NEWS

September A Series of Advertisements for the Chemical Process Industries 1961



*(Photo courtesy Metal Hydrides Inc.)*
**Use of dispersed sodium is key to efficient pilot and plant scale production of sodium borohydride. First step, shown here, is to make sodium hydride by reacting hydrogen gas with metallic sodium dispersed in mineral oil. The sodium hydride is later reacted with methyl borate to produce sodium borohydride. Further information on sodium dispersions is contained in U.S.I.'s 42-page brochure on the subject. For a copy, address Technical Literature Dept., U.S.I. Chemical News, 99 Park Avenue, New York 16, N. Y.**

## *New Brochure Covers Bulk Storage of S. D. Alcohols And Proprietary Solvents*

Users of specially denatured alcohol or proprietary solvents who are planning to install bulk storage tanks can get expert help from U.S.I.—America's oldest and largest marketer of industrial alcohol. The company has recently issued an 8-page data sheet: "Bulk Storage Tanks for Specially Denatured Alcohol and Proprietary Solvents."

It lists four prerequisites for installing bulk storage facilities, reviews federal regulations, discusses tank design—covering materials of construction, size and location. Two final sections provide information on auxiliary equipment and measuring devices.

*(Continued on next page)*

## Amino Acid Intake-Protein Efficiency Relation Is Basis of New Diet Concept

Industry researchers have determined that the daily intake of essential amino acids should be proportional to the amount found in blood plasma. They find a direct correlation between dietary intake of these amino acids, their concentration in fasting blood plasma and protein efficiency.

Based on these findings, they have helped National Institutes of Health develop a diet concept which they feel will put nutritional studies on a sounder theoretical basis.

# Ethylene Seen as Most Valuable Petrochemical Building Block By Chemical Process Industries

### *Properties and Reactions Detailed in New Brochure*

Over five billion pounds of ethylene were produced and used in the United States last year. No other petrochemical, with the exception of synthetic ammonia (largely used for fertilizer), approaches this versatile material in volume consumed annually. Almost all of this volume is employed in the synthesis of chemical intermediates, or commercial chemicals such as alcohol and polyethylene. A small amount is used directly—as a refrigerant; as a softening, ripening and coloring agent for fruits and vegetables; and as a conditioning agent for nuts.

**Ethylene in cylinders is sold by U.S.I. for food processing, as a refrigerant, and as a chemical raw material.**

The values of ethylene to the CPI are its low cost and its ability to polymerize or react by addition with simple, inexpensive materials such as hydrochloric acid, oxygen and chlorine—to yield extremely useful intermediates or end products.

**End Products Extremely Numerous**

The largest quantity of ethylene produced is consumed by the chemical industry in the manufacture of six derivatives:
(1) Ethylene Oxide
(2) Polyethylene
(3) Ethyl Alcohol
(4) Styrene
(5) Ethyl Chloride
(6) Ethylene Dichloride

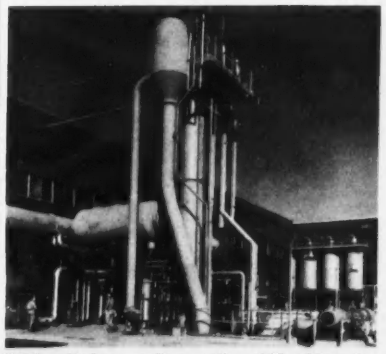
Ethyl ether is produced concurrently with ethyl alcohol.

End products from these derivatives are very numerous, and extremely important in our chemical economy. Ethylene oxide, for example, is the starting point for monoethylene glycol, used primarily in automotive antifreeze. It is also the building block for di- and triethylene glycols, ethanolamines, glycolethers, acrylonitrile, surfactants and other compounds.

Polyethylene is the fastest growing plastic on the market today. Consumption of ethylene for polyethylene in the U.S., totalling six million pounds in 1945, is expected to reach 1.6 billion by 1965.

Over 50% of all ethyl alcohol is con-

*(Continued on next page)*



**U.S.I. ethylene unit supplies 100-million lb.-per-year polyethylene plant at Tuscola, Ill.**

## *National Distillers, Owens-Illinois Form Co. to Make High-Density Polyethylene*

Formation of a new, jointly owned company to make high-density (linear) polyethylene was announced recently by National Distillers and Owens-Illinois Glass Company. The name of the new company is National Petro Chemicals Corporation.

The new company will operate a plant in Houston, Texas, plans for which were announced by National Distillers last February. The plant, scheduled for completion in late 1962, will have an annual capacity of about 60 million pounds.

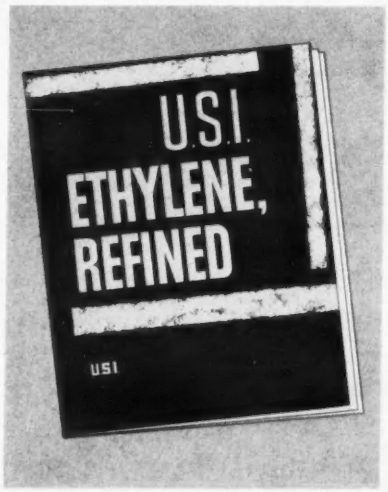
U.S.I. Division of National Distillers produces low and medium density polyethylene resins at plants in Houston, Texas and Tuscola, Illinois.

### *Ethylene—Valuable Building Block* *(Continued)*

verted to acetaldehyde which in turn is the building block for countless derivatives. These include acetic acid and its anhydride, the acetates, n-butyraldehyde, n-butanol and pentaerythritol.

The need for styrene for butadiene-styrene synthetic rubber during World War II first brought ethylene to the fore as a chemical raw material. Today, styrene is the base material for polystyrene plastics and latex paints as well.

Ethyl chloride yields tetraethyl lead and ethyl cellulose. Ethylene dichloride gives rise to ethylene amines and to a large part of the vinyl chloride produced.




**New Ethylene Literature Available**

The demand for ethylene is expected to reach about 6.8 billion pounds by 1965. To help those working with the material, U.S.I. has just issued a new, comprehensive brochure covering refined ethylene. It contains tables and charts of physical properties, a two-page table of refrigeration data, specifications, shipping information, applications, diagrammed chemical reactions, complete cylinder handling information and bibliography.

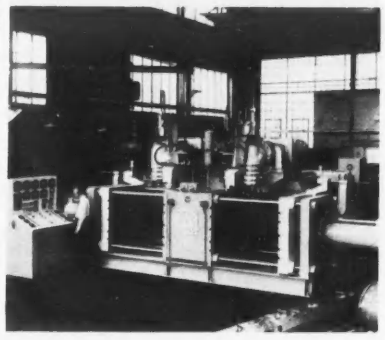
Copies may be obtained by addressing Technical Literature Dept., U.S.I. Chemical News, 99 Park Ave., New York 16, N. Y.

## U.S.I. Products Make News

On these pages are news stories on ethylene, polyethylene, sodium, ethyl alcohol and proprietary solvents, all products of U.S.I. But the company also markets other chemicals which seldom make news. We'd like to list them here:

n-Butyl alcohol, amyl alcohol, ethyl acetate, n-butyl acetate, acetone, ethyl ether.

Anhydrous ammonia, ammonium nitrate, nitric acid, nitrogen fertilizer solutions, phosphoric acid, sulfuric acid, sodium peroxide.



## 90-Gallon, Blow-Molded Polyethylene Drum Liners Produced by New Machine

Blow-molded polyethylene drum liners of 55- to 90-gallon capacity can now be obtained, thanks to the development of a new, giant blow-molding machine. It is felt that, in the near future, the adaptation of even larger molds to this new equipment will make possible successful production of up to 250-gallon containers.

U.S.I.'s PETROTHENE® 106 polyethylene resin has been molded into 55-gallon drum liners on this new equipment.

### *Bulk Storage of Alcohols* *(Continued)*

Included are diagrams of typical above-ground and underground storage tanks. Other diagrams show details for gauging wells and for anchoring underground tanks.

For copies of the new bulk storage bulletin, write Technical Literature Dept., U.S.I. Chemical News, 99 Park Ave., New York 16, N. Y.

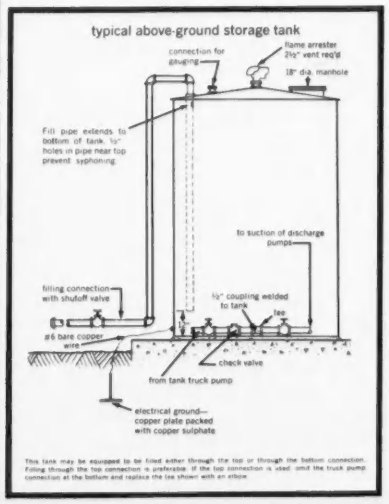

typical above-ground storage tank
connection for gauging
flame arrester 2½" vent req'd
18" dia. manhole
Fill pipe extends to bottom of tank. ⅛" holes in pipe near top prevent syphoning
to suction of discharge pumps
filling connection with shutoff valve
½" coupling welded to tank
tee
#6 bare copper wire
check valve
from tank truck pump
electrical ground—copper plate packed with copper sulphate
This tank may be equipped to be filled either through the top or through the bottom connection. Filling through the top connection is preferable. If the top connection is used, omit the truck pump connection at the bottom and replace the tee shown with an elbow.

**Diagram of typical above ground storage tank is included in U.S.I.'s latest Technical Data Bulletin, "Bulk Storage Tanks for Specially Denatured Alcohol and Proprietary Solvents."**

## TECHNICAL DEVELOPMENTS

*Information about manufacturers of these items may be obtained by writing U.S.I.*

**Low temperature properties of copper** and its alloys is subject of literature now offered. For use in cryogenic equipment, copper said to provide remarkable retention of ductility at low temperatures. **No. 1750**

**Aleuritic acid** (9, 10, 16-trihydroxypalmitic acid) now available in commercial quantities. Suggested for use in perfumery (civetone, dihydrocivetone, epi-ambrettolide), pharmaceuticals, plasticizers, plastics, adhesives, etc. **No. 1751**

**New filter holders,** for use with submicron membrane filters in processing liquids, can now be obtained. Typical uses include contamination analysis, bacteria detection, drug sterilization, production of super-pure water. **No. 1752**

**Protective coating formulations,** based on distilled tall oil and tall oil fatty acids, are described in a new series of data sheets just issued. Give procedures for formulating, compositions, properties, suggested uses for each. **No. 1753**

**Five new 5'-ribonucleoside di- and triphosphates,** for large-scale experiments in nucleic acid chemistry and synthesis, have been developed. Include cytidine compounds CDP and CTP; uridine compounds UDP, UTP and UDP Glucose. **No. 1754**

**Infrared physics** is subject of new journal now published quarterly from London. Covers IR theory, experiment, instrumentation as applied to IR detection and transmission, and research problems using infrared. **No. 1755**

**New volumetric concentrates,** for rapid preparation of standard solutions claimed accurate to 0.1%, have been introduced. Come in spill-proof ampoules said to have long shelf-life. 38 Concentrates now offered. **No. 1756**

**Toluene, benzene and xylene specifications** for maximum acceptable concentrations in all places of employment are provided in three newly revised ASA standards now being sold. **No. 1757**

**Scientific and Technical Societies of U.S. and Canada,** 7th edition, can now be purchased. This standard reference book lists 1,597 U.S. and 239 Canadian societies, both national and local, with complete details. **No. 1758**

**Chlorine properties** are detailed in 28-page booklet now available. Booklet includes information on shipping, handling, safety measures, uses. Illustrated with graphs, charts, photos, drawings. **No. 1759**

*Please use number when writing.*

U.S.I.

**U.S. INDUSTRIAL CHEMICALS CO.**

Division of National Distillers and Chemical Corporation

99 PARK AVENUE • NEW YORK 16, N. Y.

PRODUCERS OF:

Industrial Alcohols, Solvents, Polyethylene Resins, Heavy Chemicals, Metallic Sodium

U.S.I. SALES OFFICES:

Atlanta • Baltimore • Boston • Chicago • Cincinnati
Cleveland • Detroit • Kansas City, Mo. • Los Angeles
Louisville • Minneapolis • New Orleans • New York
Philadelphia • St. Louis • San Francisco

Degras, common (15-17% free fatty acid), 400-lb. dms lb. .12 - .14
Neutral (over 2% free fatty acid), 400-lb. dms lb. 13 - —

Denatured alcohol, ethyl CD-18, CD-19, dms., c.l., dlvd. E. of Rockies gal. .69½ - —
dms., t.c.l., same basis gal. .74½ - .80½
tanks, dlvd., same basis gal. .53½ - —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.

Denatured alcohol, ethyl, proprietary solvent, dms., c.l., dlvd E. of Rockies gal. .72 — —
dms., t.c.l., same basis gal. .77 - .83
tanks, same basis gal. .56 - —
Tankcar sales require written authorization by Alcohol and Tobacco Tax Division.

Denatured alcohol, ethyl, SD1, dms., dlvd E of Rockies gal. .70½ - —
dms., t.c.l. same basis gal. .75½ - .81½
tanks, same basis gal. .54½ - —
SD2B, dms. c.l. dlvd. E. of Rockies gal. .69 — —
dms., t.c.l., same basis gal. .74 - .80
tanks, same basis gal. .53 - —
SD3A dms c.l. dlvd. E. of Rockies gal. .68 — —
dms t.c.l same basis gal. .73 - .79
tanks, same basis gal. .52 - —
SD23A, dms., c.l., dlvd. E. of Rockies gal. .70½ - —
dms., t.c.l., same basis gal. .75½ - .81½
tanks, same basis gal. .54½ - —
SD23H, dms., c.l., dlvd. E. of Rockies gal. .71 - —
dms., t.c.l. same basis gal. .76 - .82
tanks same basis gal. .55 - —
SD29, dms., c.l., dlvd. E. of Rockies gal. .69½ - —
dms., t.c.l., same basis gal. .74½ - .80½
tanks, same basis gal. .53½ - —
SD30, dms., c.l. dlvd. E. of Rockies gal. .68 - —
dms., t.c.l., same basis gal. .73 - .79
tanks, same basis gal. .52 - —
SD35A, dms., c.l., dlvd. E. of Rockies gal. .71 - —
dms., t.c.l., same basis gal. .76 - .82
tanks, same basis gal. .55 - —
SD-40, dms., dlvd. E. of Rockies. gal. .70½ - —
dms., t.c.l., same basis gal. .75½ - .81½
tanks, same basis gal. .54½ - —
For anhyd. alcohol on above formulas prices are 7c. per gal. higher.
West coast dlvd. prices are the same as eastern prices, except in Idaho, Montana, Oregon, and Washington where a 5c. differential on tankcars is maintained.

d-Desoxyephedrine hydrochloride, dms lb. 15.00 - 17.00
dl-Desoxyephedrine hydrochloride, dms lb. 6.60 - —

Dextrin, corn, gum, paper bgs., c.l., 100 lbs. 9.39 - —
paper bgs., t.c.l. 100 lbs. 9.54 - —
canary dark, paper bgs., c.l. 100 lbs. 9.23 - —
paper bgs., t.c.l. 100 lbs. 9.38 - —
tndust. grade, 6-16 mesh, canary light, paper bgs., c.l. 100 lbs. 9.13 - —
paper bgs., t.c.l. 100 lbs. 9.28 - —
white paper bgs., c.l. 100 lbs. 8.97 - —
paper bgs., t.c.l. 100 lbs. 9.12 - —
Corn dextrin in cotton bgs. 15c. per 100 lbs. higher

Dextrose, anhyd., coml., bgs., c.l. 100 lbs. 8.65 - —
bgs. t.c.l. 100 lbs. 8.80 - —
Anhyd., special, aluminum foil lined fib. dms., 200-lb. dms 100 lbs. 14.70 - —
100-lb. dms. 100 lbs. 15.20 - —
Hydrated, coml., bgs., c.l. ex whse. 100 lbs. 7.45 - —
bgs. c.l., ex whse 100 lbs. 7.60 - —
USP dms. lb. .13¾ - —

Diacetone alcohol, acetone-free, dms., c.l., dlvd lb. .15½ - —
dms., t.c.l., dlvd. lb. .17 - —
tanks, dlvd lb. .13 - —
Tech., dms., c.l., dlvd. lb. .15 - —
dms., t.c.l., dlvd. lb. .16½ - —
tanks, dlvd lb. .12½ - —

Diacetyl, flavor grade, bots. lb. 3.30 - 4.30

Di-sec-amyl phenol, dms., c.l., works lb. .32 - —
dms., t.c.l., works lb. .33 - —
tanks, works lb. .29½ - —

Di-tert-amyl phenol, dms., c.l., works lb. .32 - —
dms., t.c.l., works lb. .33 - —
tanks, works lb. .29½ - —

Diallylamine, dms., c.l., dlvd. lb. .98½ - —
dms., t.c.l., dlvd. lb. 1.00 - —
tanks, dlvd. lb. .96 - —

o-Dianisidine, dry, tech., fib. dms. lb. 2.00 - —

Dibenzyl sebacate, dms., c.l., works. lb. .93 - —
dms., t.c.l., same basis lb. .94 - —
tanks, same basis lb. .91 - —

Dibromobenzene, bgs., 500-lb. lots. lb. .53 - —

2,6-Di-tert-butyl-p-cresol, feed grade, c.l., t.l., dms., dlvd. lb. .65 - —
t.t.l., dms., same basis lb. .68 - —
Food grade, c.l., t.l., dms., dlvd. lb. .65 - —
dms., t.t.l., same basis lb. .68 - 1.10
Tech., dms., c.l., t.l., dlvd. lb. .57 - —
dms., t.c.l., same basis lb. .60 - —
tanks, same basis lb. .54 - —

Dibutyl fumarate, dms., c.l., t.l., dlvd. E lb. .31½ - —
dms., t.c.l., t.t.l., dlvd. E lb. .33 - —
tanks, dlvd E lb. .29 - —

Dibutyl maleate, dms., c.l., t.l., dlvd. E lb. .31½ - —
dms., t.c.l., t.t.l., dlvd. E lb. .33 - —
tanks, dlvd. E lb. .29 - —

Dibutyl phthalate, dms., c.l., dlvd. E lb. .30½ - —
dms., t.c.l., same basis lb. .32 - —
tankcars, tanktrucks, 2,000 gals., same basis lb. .28 - —
tanktrucks, 1,000-1,999 gals., same basis lb. .28 - —

Dibutyl sebacate, dms., c.l., works. lb. .67½ - —
dms., t.c.l., works lb. .68½ - —
tanks, works lb. .65½ - —

Dibutyl tartrate, dms., works, frt. alld lb. .65½ - —

Dibutylamine, dms., c.l., dlvd. lb. .55½ - —
dms., t.c.l., same basis lb. .57 - —
tanks, same basis lb. .53 - —

Dicapryl phthalate, dms., c.l., dlvd. lb. .26½ - —
dms., t.c.l., dlvd. lb. .27½ - —
tanks, dlvd. lb. .23½ - —

Dicapryl sebacate, dms., c.l., works. lb. .63 - —
dms., t.c.l., works lb. .63½ - .64
tanks, works lb. .61 - —

2,5-Dichloroaniline, dms., works lb. .83 - —

3,4-Dichloroaniline, tech., solid, tanks, frt. alld lb. .73 - —

o-Dichlorobenzene, dms., c.l., frt. alld. E lb. .12¾ - —
dms., t.c.l., same basis lb. .13¾ - —
tanks, same basis lb. .11 - —

p-Dichlorobenzene, dms., c.l., f.o.b. works, frt. alld. E lb. .12 - —
dms., 2,000 lbs. or more same basis lb. .14½ - —

1,4-Dichlorobutane, dms., c.l., or t.l., works lb. .33½ - —
dms., t.c.l., or t.t.l., works lb. .34 - —
tanks, works lb. .32 - —

Dichlorodiphenyltrichloroethane (see DDT).

2,2-Dichloroethyl ether, dms., c.l., t.l., dlvd. E lb. .15½ - —
dms., t.c.l., t.t.l., same basis lb. .17 - —
tanks, same basis lb. .13 - —

Dichloroisocyanuric acid, dms., c.l., t.l., frt. equald lb. .65 - —
dms., t.c.l., same basis lb. .75 - —

Dichloropentanes dist., dms., c.l., works lb. .05 - —
dms., t.c.l., works lb. .06 - —
tanks, works lb. .03 - —

Dichlorophenoxyacetic acid (see 2,4-D).

Dicyclohexylamine, c.l., works. lb. .54 - —
dms., t.c.l., works lb. .55 - —
tanks, works lb. .52 - —

Dicyclohexyl phthalate, gran., fib. dms. c.l. works frt. alld. lb. .49½ - —
fib. dms., t.c.l., same basis lb. .51½ - —

Dicyclopentadiene dms. c.l., t.o.b. works lb. .14½ - —
dms., t.c.l., same basis lb. .14¾ - —
tanks, same basis lb. .12 - —

Didecyl phthalate dms. c.l., works. lb. .26½ - —
dms., t.c.l., same basis lb. .28 - —
tankcars, tanktrucks, 2,000 gals. lb. .23 - —
tanktrucks, 1,000-1,999 gals, same basis lb. .24½ - —

Dieldrin, dms., c.l. dlvd. lb. 1.85 - —
dms., t.c.l. dlvd lb. 1.90 - —

Diethanolamine dms. c.l., dlvd. E. lb. .27 - —
dms., t.c.l., same basis lb. .28½ - —
tanks, same basis lb. .24½ - —

Diethanolamine lauryl sulfate, dms., c.l., frt. alld lb. .27½ - —
dms., t.t.l., frt. alld. lb. .28½ - —
tanks, frt. alld lb. .26½ - —

Diethyl barbituric acid (see Barbital).

Diethyl carbonate, dms., c.l., t.o.b. works lb. .47½ - —
dms., t.c.l., same basis lb. .48½ - —
tanks, same basis lb. .45 - —

Diethyl ethanolamines, dms., c.l., dlvd lb. .69½ - —
dms., t.c.l., dlvd. lb. .71 - —
tanks, dlvd lb. .67 - —

Diethyl oxalate, dms., c.l., t.o.b. works lb. .42½ - —
dms., t.c.l., same basis lb. .43½ - —
tanks, same basis lb. .40 - —

Diethyl phthalate, dms., c.l., dlvd. lb. .28¼ - —
dms., t.c.l. dlvd. lb. .29¾ - —
tanktrucks, 1,000-1,999 gals, same basis lb. .24¼ - —
tankcars, tanktrucks, 2,000-lb. lots, same basis lb. .23¾ - —

Diethyl sulfate, dms, c.l., frt. alld. E. lb. .21 - —
dms., t.c.l., frt. alld. E lb. .22½ - —
tanks, frt. alld. E lb. .18½ - —

Diethyl thiourea, dms., c.l., t.l., works lb. .56 - —
dms., t.c.l., same basis lb. .59 - —

Diethyl toluamide, 90-95% meta isomer dms. c.l., t.l., works. lb 2.30 - —
5-44 dm. lots, works lb 2.35 - —
1-4 dm. lots, works lb. 2.40 - —

N,N-Diethyl-m-toluidine, tech., liq., tanks, frt. alld lb. .83 - —

Diethylamine, dms., c.l., dlvd E lb. .52 - —
dms., t.c.l., same basis lb. 53½ - —
tanks, same basis lb. 49½ - —

N,N-Diethylaniline, dms., c.l., frt. alld lb. .57 - —
dms., t.c.l., same basis lb .58 - —
tanks, same basis lb. 55 - —

Diethylbenzene, 380 lb dms., c.l., t.l., frt alld., Zone 1 lb 17½ - —
f.o.b. Zone 2 lb. 18½ - —
380-lb. dms., t.c.l., c.l., f.o.b. Zone 1 lb. .19½ - —
f.o.b. warehouse points, Zone 2 lb .20½ - —
tankcars, Zone 1 lb. .15 - —
Zone 2 lb 16 - —
Zone 1 is East of the Rockies. Zone 2, West of the Rockies

Di-2-ethylhexyl adipate (see Di-octyl adipate).

Di-2-ethylhexyl phthalate (see Di-octyl phthalate).

Diethylene glycol dms. c.l. dlvd E. lb. 17¾ - —
dms., t.c.l., same basis lb 19¼ - —
tanks, same basis lb. 15¼ - —

Diethylene glycol diethyl ether, dms., c.l., works lb. .55 - —
dms., t.c.l., works lb. .55¾ - —

Diethylene glycol monobutyl ether, c.l., dms., frt. alld. E lb. .30¾ - —
dms., t.c.l., frt. alld. E lb. .32¼ - —
tanks, frt. alld. E lb. .28¼ - —

## Degras—Diethylene Glycol Monobutyl Ether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SULFONATES
SULFONIC ACIDS
SULFUR DIOXIDE
SULFURIC ACID
FERRIC SULFATE
ZINC OXIDE
ZINC SULFATE, MONOHYDRATED
MANGANESE SULFATE
MANGANOUS OXIDE
POTASSIUM SILICOFLUORIDE
SODIUM SILICOFLUORIDE

## Diethylene Glycol Monobutyl Ether Acetate—Dyes

Diethylene glycol monobutyl ether acetate, dms., c.l., works lb. .30¾- —
dms., l.c.l., works lb. .31½- —
tanks, works lb. .28¾- —
Diethylene glycol monoethyl ether, dms., c.l., dlvd. E lb. .22½- —
dms., l.c.l., dlvd. E lb. .24 - —
tanks dlvd E lb. .20 - —
Diethylene glycol monoethyl ether acetate, dms., c.l., works. lb. .27¼- —
dms., l.c.l., works lb. .28 - —
tanks, works lb. .25¼- —
Diethylene glycol monomethyl ether, dms., c.l., dlvd. E lb. .21 - —
dms., l.c.l., dlvd. E lb. .22½- —
tanks, dlvd E lb. .18½- —
Diethylenetriamine, dms., c.l., dlvd. E lb. .44 - —
dms., l.c.l., dlvd E. lb. .45½- —
tanks, dlvd E. lb. .41½- —
Diethylstilbesterol, USP, bots. 10-kilo lots kilo 100 00 147 50
bots, 1-kilo lot kilo 110 00 152 50
Digitalis leaves, USP, dom., dms. lb 1.25 —
Digitoxin, USP, bots gr; m 3.75 4.20
Diglycol laurate, dms., ton lots lb. .32½- —
Diglycol stearate, dms., t.l. lb. .26 - —
Diglycolic acid, bgs., c.l., t.l., works. lb. .15½- —
bgs., l.c.l., works lb. .16 - —
Dihexyl sebacate, dms., c.l., works. lb. .66 - —
dms., l.c.l., works lb. .67 - —
tanks, works lb. .64 - —
Dihydrazine sulfate, dms., works lb. 1.10 - 1.25
Dihydrostreptomycin sulfate, bulk. gram. .028 - .03

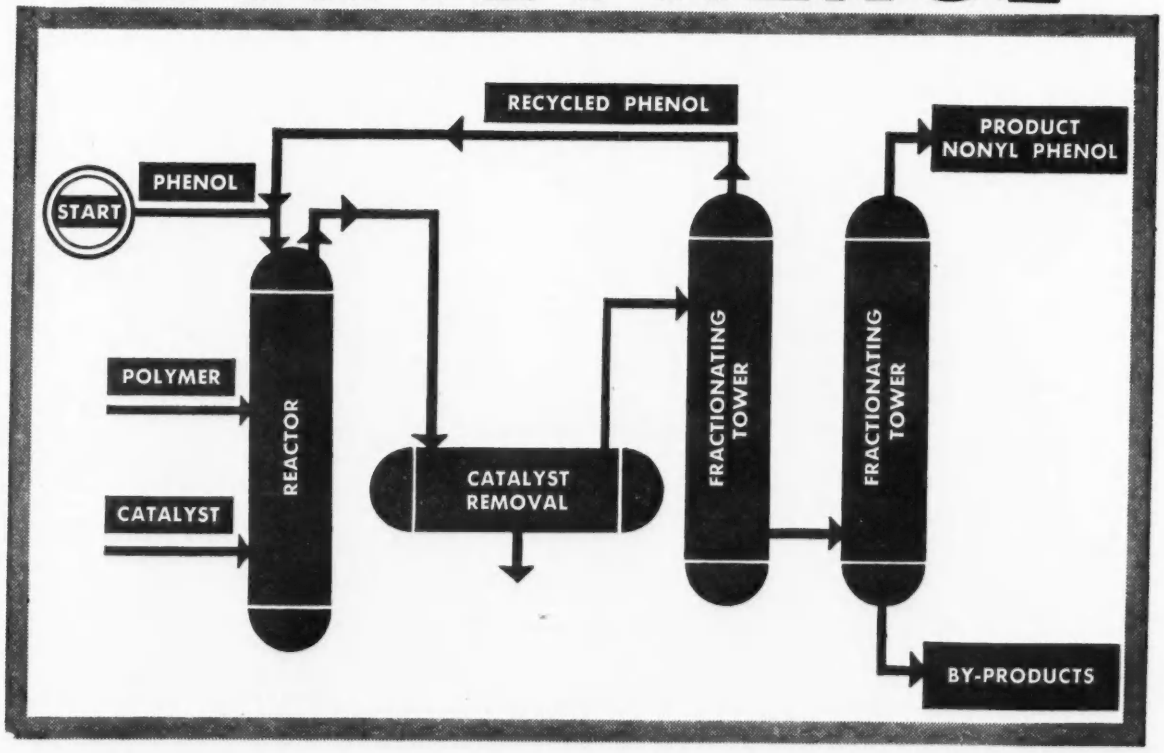
1,2-Dihydroxy anthraquinone, dms., works lb 3.45 - —
2,2-Dihydroxy-5-5-dichloro-diphenyl methane, pure, dms lb. 2.55 - —
Tech., dms., 20,000 lbs or more lb 1.11 - —
dms. 1,050 lbs to 20,000 lbs. lb. 1.13 - —
dms. 150 lbs to 1,050 lbs lb. 1.15 - —
Di-isobutyl ketone, dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd. lb. .18½- —
tanks, dlvd lb. .14½- —
Di-isobutyl phthalate, dms., c.l., dlvd. E lb. .29 - —
dms., l.c.l., same basis lb. .30½- —
tanks, same basis lb. .26½- —
Di-isobutylene, dms., c.l., dlvd. E lb. .10 - —
dms., l.c.l., dlvd E lb. .11½- —
tanks, dlvd E lb. .08 - —
Di-iso-octyl phthalate, dms., c.l., works lb. .26 - —
dms., l.c.l., same basis lb. .27½- —
tanktrucks, 1,000-1,999 gals., works lb. .24 - —
tankcars, tanktrucks, 2,000 gals., works lb. .23½- —
Di-iso-octyl sebacate, dms., c.l., works lb. .62 - —
dms., l.c.l., works lb. .61¼- —
tanks, works lb. .60 - —
Di-isopropanolamine, dms., c.l., dlvd. lb. .23¼- —
dms., l.c.l., same basis lb. .24¾- —
tanks, same basis lb. .20¾- —
Di-isopropylamine, dms., c.l., dlvd. E. of Rockies lb. .50½- —
dms., l.c.l., same basis lb. .52 - —
tanks, same basis lb. .48 - —

Dillweed oil, dom., bots., dms. lb. 4.50 - —
Dimethyl anthranilate, cns. lb. 4.18 - —
Dimethyl dichlorovinyl phosphate, 55-gal. dms., dlvd lb. 3.80 - —
Dimethyl ethanolamine, anhyd., dms., c.l., dlvd. E lb. .78 - —
dms., l.c.l., dlvd. E lb. .79½- —
tanks, dlvd. E lb. .75½- —
Dimethyl ethanolamine, 70%, dms., c.l., dlvd., 100% basis, contained amines lb. .78 - —
dms., l.c.l., dlvd., 100% basis. lb. .79½- —
tanks, dlvd., 100% basis lb. .75½- —
Dimethyl hydroquinone, dms. lb. 1.90 - 2.20
Dimethyl phthalate, dms., c.l., works lb. .28¼- —
dms., l.c.l., works lb. .29¾- —
tanktrucks, 1,000-1,999 gals., same basis lb. .26¼- —
tankcars, tanktrucks, 2,000 gals., same basis lb. .25¾- —
Dimethyl sebacate, dms., c.l., works. lb. 1.30 - —
dms., l.c.l., works lb. 1.30½- 1.31
tanks, works lb. 1.28 - —
Dimethyl sulfate, ret. dms., c.l., works lb. .17¼- —
ret. dms., l.c.l., works lb. .18¼- —
tanks, works lb. .16½- —
Dimethyl sulfide, dms., c.l., works, lb. .17½- —
dms., l.c.l., works lb. .18½- .19½
tanks, works lb. .15 - —
Dimethyl sulfoxide, dms., c.l., f.o.b. works lb. .35 - —
dms., l.c.l., same basis lb. .37 - .38
tanks, same basis lb. .33 - —
Dimethylamine, 25% soln., dms., c.l., frt. equald, 100% basis lb. .38 - —
dms., l.c.l., frt. equald, 100% basis lb. .38½- —

Dimethylamine, 25% soln., tanks, frt. equald, 100% basis lb. .28 - —
40% soln., dms., c.l., frt. equald., 100% basis lb. .38 - —
dms., l.c.l., frt. equald, 100% basis lb. .35½- —
tanks, frt. equald., 100% basis lb. .28 - —
N,N-Dimethylaniline, dms., c.l., frt. alld lb. .28 - —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .26 - —
N,N-Dimethylformamide, dms., c.l., t.l., works lb. .32½- —
dms., l.c.l., works lb. .33 - .34
tanks, works lb. .30 - —
2,4-Dinitroaniline, dms., frt. alld lb. .75 - —
Dinitroaniline orange toner, CP, bbls., dlvd. E. of Rockies. lb. 1.61 - —
Dinitroaniline orange toner prices 1c. higher W of Rockies.
m-Dinitrobenzene, 89°C., dms. lb. .36 - —
2,4-Dinitrochlorobenzene, crystallizing at 46¼°C., dms., c.l., frt. alld. E lb. .17¼- —
dms., l.c.l., frt. alld. E lb. .17¾- —
tanks, frt. alld. E lb. .17 - —
2,4-Dinitrophenol bbls. lb. .41 - —
2,4-Dinitrotoluene, oil, dms. lb. .11 - —
Refd., 63°C., dms. lb. .23 - —
Dioctyl adipate, dms., c.l., works lb. .38½- —
dms., l.c.l., works lb. .40 - —
tanks, works lb. .36 - —
Dioctyl phthalate, dms., c.l., frt. alld. E lb. .26 - —
dms., l.c.l., frt. alld. E lb. .27½- —
tanktrucks, 1,000-1,999 gals., same basis lb. .24 - —
tankcars, tanktrucks, 2,000 gals., same basis lb. .23½- —
Dioctyl phthalate prices ¾c. higher in West.
Dioctyl sebacate, dms., c.l., works. lb. .61¼- —
dms., l.c.l., works lb. .62¼- —
dms., l.c.l., works lb. .62¼ —
tanks, works, dlvd. lb. .59¼- —
1,4-Dioxane, dms., c.l., frt. alld. E. lb. .31½- —
dms., l.c.l., frt. alld. E lb. .33 - —
tanks, frt. alld. E lb. .29 - —
Prices in the west are 2c. per lb. higher.
Dipentaerythritol, bgs., c.l., t.l., dlvd. E lb. .34 - —
bgs., l.c.l., t.l., dlvd. E lb. .35 - —
Dipentene, dest.-dist., dms., c.l., works gal. .58 - —
dms., l.c.l., works lb. .62 - —
dms., l.c.l., ex whse. gal. .78 - —
tankcars, works gal. .41 - —
Dipentane, steam dist., dms., c.l., works South gal. .72 - —
dms., l.c.l., dlvd. New York gal. .91 - —
tanks, works, South lb. .55 - —
Dip oil (see Tar acid oil).
Diphenolic acid, 1,000-lb. or more, bgs., works lb. .75 - —
Diphenolic polyether acids, 1,000-lb. or more, bgs., works lb. 1.00 - —
Diphenyl, bgs., c.l., t.l., works lb. .16¾- —
bgs., l.c.l., works lb. .18½- —
tanks, works lb. .15¾- —
Diphenyl oxide, perfume grade, cns. lb. .55 - .70
Diphenyl phthalate, dms., c.l., works. lb. .51 - —
dms., l.c.l., works lb. .53 - —
Diphenylamine, refd., flake, bgs., c.l., works, frt. equald lb. .32 — —
bgs., l.c.l., same basis lb. .34 — —
Refd., fused, tanks, same basis lb. .29 - —
Refd., diphenylamine in dms., ½c. per lb. higher.
Diphenylguanadine, bgs., dms., ton lots, frt. alld lb. .51 - —
bgs., smaller lots, frt. alld lb. .52 - —
Diphenylhydantoin-sodium, USP, dms lb. 5.00 - 5.60
Dipropylene glycol, dms., c.l., frt. alld lb. .17 - —
dms., l.c.l., frt. alld. lb. .18½- —
tanks, frt. alld. lb. .14¼- —
Dipropylene glycol prices 1c. higher in West.
Dipropylene glycol methyl ether, dms., c.l., dlvd. E lb. .20 - —
dms., l.c.l., same basis lb. .21½- —
tanks, same basis lb. .18½- —
Dithiodibenzoic acid, dms., 1,000-lb. lots, works lb. 1.80 - —
Di-o-tolylguanidine, dms., ton lots, frt. alld lb. .71 - —
dms., smaller lots, frt. alld lb. .72 - —
Di-o-tolylthiourea, tech., solid, dms., c.l., t.l., frt. alld lb. .55 - —
Divinylbenzene, 20-25%, dms., c.l., works, frt. equald lb. .20 - —
dms., l.c.l., same basis lb. .21 - —
tanks, same basis lb. .19 - —
50-60%, dms., c.l., works, 100% basis lb. 1.00 - —
dms., l.c.l., works, 100% basis. lb. 1.05 - —
tanks, same basis lb. .90 - —
Dodecenyl succinic anhydride, dms., c.l., t.l., dlvd. E lb. .50 - —
dms, l.c.l., l.t.l., same basis lb. .52 - —
Dodecylbenzene, dms., c.l., f.o.b., works, frt equald lb. .134 - —
dms., l.c.l., same basis lb. .144 - —
tanks, same basis lb. .11 - —
Dodecylphenol, c.l., frt. alld lb. .22½- —
dms., l.c.l., same basis lb. .23½- —
tanks, same basis lb. .20 - —
Dodecylphenol prices on shipments to Western States are 2c. per pound higher.
Dyes, coaltar, certified colors for food, drugs and cosmetics, 500-lb. and 25-lb. lots, frt. prepaid or alld.
Blue, FD&C, No. 1 lb. 15.65 -16.45
No. 2 lb. 15.65 -16.45
Green, FD&C, No. 1 lb. 15.65 -16.45
No. 2 lb. 19.60 -20.40
No. 3 lb. 31.30 -32.10
Red, FD&C, No. 2 lb. 3.60 - 4.40
No. 3 lb. 19.60 -20.40
No. 4 lb. 6.00 - 6.80
Yellow, FD&C, No. 5 lb. 3.75 - 4.55
No. 6 lb. 3.65 - 4.45
Dyes, coaltar, certified colors for drugs and cosmetics, 200-lb. and 1-lb. lots, dlvd.:
Black, D&C, No. 1 lb. 12.40 -13.00
Brown, D&C, No. 1 lb. 16.35 -16.95
Green, D&C, No. 5 lb. 17.00 -17.60
No. 6 lb. 17.40 -18.00
No. 7 lb. 14.35 -14.95
Orange, D&C, No. 3 lb. 10.50 -10.95
No. 4 lb. 19.60 -20.05
No. 5 lb. 3.80 - 4.25
Red, D&C, No. 17 lb. 12.55 -13.15
No. 18 lb. 23.55 -24.15
No. 19 lb. 15.00 -15.45
No. 21 lb. 3.90 - 4.35
No. 22 lb. 10.50 -10.95
No. 28 lb. 27.90 -28.50
No. 33 lb. 17.00 -17.45
Violet, D&C, No. 2 lb. 15.65 -16.10
Yellow, D&C, No. 7 lb. 10.50 -10.95
No. 8 lb. 10.50 -10.95
No. 10 lb. 15.10 -15.70
No. 11 lb. 14.80 -15.40
Dyes, coaltar, certified colors for drugs and cosmetics, external use, 500-lb. and 1-lb. lots, dlvd.:
Blue, Ext., D&C, No. 1 lb. 15.65 -16.10
Green, Ext., D&C, No. 1 lb. 15.65 -16.10
Red, Ext., D&C, No. 1 lb. 13.05 -13.50
Yellow, Ext. D&C, No. 1 lb. 10.50 10.95
Dyes, coaltar for general use in cloth dyeing (numbers are those of the Color Index scale or prototype), contract dlvd No.
11110 Brilliant scarlet BN lb 1.79 - —
13390 Fast blue SR lb. 1.57 - —
14025 Yellow 2G lb. 1.32 - —


HARDWORKING JEFFERSON CHEMICALS

# NONYL PHENOL

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Jefferson's special *continuous process* for producing Nonyl Phenol, on stream since 1959, assures you of a uniformly high quality product in any quantity you require.

Nonyl Phenol is a mixture of monoalkyl phenols, predominately para substituted. The side chains are random-branched alkyl radicals. This alkyl phenol is insoluble in water and dilute aqueous caustic, but soluble in benzene, chlorinated solvents, aniline, heptane, aliphatic alcohols and ethylene glycol. Some of the applications are: an intermediate in anionic and nonionic surface-active agents; a starting material for lubricating oil additives, stabilizers, petroleum demulsifiers, oil-soluble phenolic resins and plasticizers.

Write for free Technical Brochure . . . Jefferson Chemical Company, Inc., 1121 Walker Avenue, P. O. Box 303, Houston 1, Texas.

**SPECIFICATIONS**

| | |
|---|---|
| Specific gravity | 0.94 min. |
| 20/20°C. | 0.95 max. |
| Hydroxyl number | 245 min. |
| | 258 max. |
| Color, Pt-Co scale | 100 max. |
| Boiling range, ASTM, °C. | |
| IBP: | 283 min. |
| 95% | 302 max. |

**SELECT PROPERTIES**

| | |
|---|---|
| Pour point | 2°C. |
| Refractive index, | |
| $N_D20$ | 1.513 |
| Flash point, | |
| (TOC), °F. | 300 |
| Dielectric constant, | |
| 3500 kc, 23°C. | 5.0 |

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JEFFERSON CHEMICALS

001

**Dyes, coaltar for general use in cloth dyeing (numbers are those of the Colour Index scale of prototype), contract, dlvd. No.**

| | | | | |
|---|---|---|---|---|
| 14030 | Orange R, extra, conc. | lb. | 1.64 | — |
| 14645 | Chrome black T | lb. | .77 | — |
| 14720 | Rubine XX, conc | lb. | 1.76 | — |
| 15510 | Orange Y, extra conc. | lb. | .83 | — |
| 15575 | Orange RR | lb. | 1.10 | — |
| 15620 | Fast Red A, conc. | lb. | 1.77 | — |
| 15705 | Chrome blue black R, conc. | lb. | 1.12 | — |
| 16150 | Scarlet 2RL | lb. | 1.22 | — |
| 16255 | Brilliant scarlet 3RN, conc. | lb. | 1.34 | — |
| 16230 | Fast light, orange 2G | lb. | 1.39 | — |
| 17590 | Brown PG | lb. | 3.00 | — |
| 18050 | Phloxine 2G | lb. | 1.16 | — |
| 18055 | Fuchsine 6B | lb. | 1.55 | — |
| 18965 | Fast yellow 2G | lb. | 2.44 | — |
| 19140 | Yellow XX | lb. | 2.48 | — |
| 19555 | Yellow NN, conc. | lb. | 3.67 | — |
| 20170 | Brown Y | lb. | 1.33 | — |
| 20470 | Blue black, extra, conc. | lb. | 1.44 | — |
| 21010 | Brown, RX, conc. | lb. | 1.42 | — |
| 22240 | Scarlet B | lb. | 2.81 | — |
| 22310 | Red FC | lb. | 1.57 | — |
| 22311 | Brown MCW | lb. | 1.59 | — |
| 22610 | Blue 2B, extra conc. | lb. | 1.51 | — |
| 23500 | Red 4BX, conc. | lb. | 1.80 | — |
| 24410 | Sky blue FF, extra, conc. | lb. | 1.95 | — |
| 24895 | Brilliant yellow, conc. | lb. | 3.27 | — |
| 26360 | Navy blue 3R, conc. | lb. | 1.84 | — |
| 26695 | Black F, conc. | lb. | 2.30 | — |
| 26900 | Milling Red 3R, conc. | lb. | 2.24 | — |
| 27075 | Neutral black 2B, conc. | lb. | 2.75 | — |
| 27720 | Gray L | lb. | 2.18 | — |
| 29185 | Fast scarlet 4BNC | lb. | 2.23 | — |
| 30015 | Diazo black VJ conc. | lb. | 2.48 | — |
| 30045 | Yellow brown K, extra | lb. | 1.45 | — |
| 30235 | Black EB, 200% | lb. | 1.33 | — |
| 30295 | Green BY conc. | lb. | 1.07 | — |
| 35650 | Brown B | lb. | 2.89 | — |
| 37565 | Naphthol SWF | lb. | 1.85 | — |
| 40000 | Yellow 2G | lb. | 1.44 | — |

**Dyes, coaltar for general use in cloth dyeing (numbers are those of the Colour Index scale of prototype), contract, dlvd. No.**

| | | | | |
|---|---|---|---|---|
| 41000 | Yellow OX | lb. | 2.45 | — |
| 42000 | Green V, crystals | lb. | 2.73 | — |
| 42040 | Brilliant green G crystals | lb. | 3.62 | — |
| 42640 | Violet 4BXN | lb. | 2.43 | — |
| 42090 | Blue EG | lb. | 1.85 | — |
| 42100 | Milling green 6B, conc. | lb. | 4.78 | — |
| 43830 | Brilliant blue, BBG | lb. | 2.44 | — |
| 44045 | Blue B, extra conc. | lb. | 3.61 | — |
| 45170 | Red BX | lb. | 4.76 | — |
| 50415 | Nigrosine SSJ | lb. | 1.03 | — |
| 52015 | Blue GXX | lb. | 2.54 | — |
| 58005 | Alizarin red SC | lb. | 3.64 | — |
| 59700 | Golden orange GFD, single paste | lb. | 2.70 | — |
| 59710 | Flaming orange 6RD double powder | lb. | 4.90 | — |
| 59800 | Dark blue BO, single paste. | lb. | 2.28 | — |
| 59825 | Jade green NC supra, double paste | lb. | 1.75 | — |
| 61570 | Alizarin green CG, extra | lb. | 4.00 | — |
| 63010 | Alizarin blue SAPG | lb. | 3.90 | — |
| 63615 | Alizarin blue black B | lb. | 3.26 | — |
| 69825 | Blue BLFD double paste | lb. | 2.76 | — |
| 70800 | Brown BR single paste | lb. | 2.03 | — |

Dyes, coaltar, oil-soluble, 100 lb. drums. dlvd. No.

| | | | | |
|---|---|---|---|---|
| 12140 | Oil scarlet BL | lb. | 1.87 | — |
| 12055 | Oil orange 7078 V | lb. | 1.38 | — |
| 26120 | Oil red N 1700 | lb. | 1.94 | — |
| 42535B | Methyl violet base | lb. | 1.83 | — |
| 44045B | Victoria blue base | lb. | 4.06 | — |
| 50415B | Oil black 8603 | lb. | .80 | — |
| 61565 | Alizarin cyanine green base. | lb. | 6.13 | — |

Dyes, coaltar, spirit soluble, 100 lb. drums, dlvd., Black RB

| | | | | |
|---|---|---|---|---|
| | | lb. | 3.89 | — |
| | Spirit brown GN | lb. | 5.30 | — |
| | Spirit orange R conc. | lb. | 5.87 | — |
| | Spirit red B conc. | lb. | 6.41 | — |
| Pr. 517 | Spirit yellow 2R conc. | lb. | 4.62 | — |
| Pr. 554 | Spirit blue THN | lb. | 5.06 | — |

## E

| | | | | |
|---|---|---|---|---|
| | Echinacea root, bls. | lb. | 1.25 | — |
| | Elm bark, grinding, bls. | lb. | .30 | .32 |
| | Powd., bbls., bxs. | lb. | .60 | — |
| | Select, bundles | lb. | .75 | — |
| | Emetine hydrochloride, USP, bots | oz. | 43.40 | — |
| | Endrin, tech., dms., 100-lbs. or more, 100% basis, dlvd. | lb. | 2.77 | — |
| | Eosin red toner, bbls., works | lb. | 1.93 | — |
| | Ephedrine, syn., USP, anhyd., bots. 100-oz.lots | oz. | .98 | 1.00 |
| | hydrous, bots., 100-oz. lots. | oz. | .92 | — |
| | Ephedrine hydrochloride, NF, dms., 100-oz., f.o.b. works | oz. | .73 | — |
| | Ephedrine sulfate, USP, cryst., dms., 100-oz. f.o.b. works | oz. | .73 | — |
| | USP, powd., dms., 100-oz., same basis | oz. | .73 | — |
| | Epichlorohydrin, dms., c.l., dlvd. | lb. | .29½ | — |
| | dms., l.c.l., dlvd. | lb. | .31 | — |
| | tanks, dlvd. | lb. | .27 | — |
| | Epinephrine base, syn., USP, bots., 100 gram. lots | gram. | .53 | — |
| | Epsom salt (see Magnesium sulfate). | | | |
| | Erigeron oil, cns. | lb. | 11.00 | — |
| | Ergot, NF, dms., tin-lined | lb. | 2.00 | 2.50 |
| | Eserine salicylate, bots. | oz. | 34.50 | 40.00 |
| | Eserine sulfate, bots. | oz. | 26.00 | — |
| | Ester gum, gum-rosin type, dms., c.l., dlvd., Ill., Md., Ky., E. States, Minneapolis, N. C., Ohio, St. Louis, St. Paul, Va., W. Va. | lb. | .18½ | — |
| | Ester gum, wood-rosin type, dms., c.l. same basis | lb. | .18½ | — |
| | Ether (see specific product). | | | |
| | Ethyl acetate, nat., ferment, 85-88%, dms., c.l., dlvd | lb. | .15 | — |
| | dms., l.c.l., dlvd. | lb. | .16½ | — |
| | tanks, dlvd. | lb. | .12½ | — |
| | 95-98%, dms. c.l., dlvd. | lb. | .15¼ | — |
| | dms., l.c.l., dlvd. | lb. | .16¾ | — |
| | tanks, dlvd | lb. | .12¾ | — |
| | 99%, dms., c.l., dlvd. | lb. | .15½ | — |
| | dms., l.c.l., dlvd. | lb. | .17 | — |
| | tanks, dlvd. | lb. | .13 | — |
| Syn., | 85-88%, dms., c.l., dlvd. | lb. | .15 | — |
| | dms., l.c.l., dlvd. | lb. | .16½ | — |
| | tanks, dlvd. | lb. | .12½ | — |
| | 95-98%, dms., c.l., dlvd. | lb. | .15¼ | — |
| | dms., l.c.l., dlvd | lb. | .16¾ | — |
| | tanks, dlvd | lb. | .12¾ | — |
| | 99%, dms., c.l., dlvd. | lb. | .15½ | — |
| | dms., l.c.l., dlvd. | lb. | .17 | — |
| | tanks dlvd. | lb. | .13 | — |
| | Ethyl acetoacetate, dms., c.l., dlvd. | lb. | 58½ | — |
| | dms., l.c.l., dlvd. | lb. | .60 | — |
| | tanks, dlvd. | lb. | .56 | — |
| | Ethyl acrylate, dms., c.l., t.l., dlvd. | lb. | .34¾ | — |
| | dms., l.t.l., dlvd | lb. | .35¾ | — |
| | tanks, dlvd. | lb. | .32¼ | — |
| | Ethyl alcohol, 190 pf., USP, tax paid dms, c.l., dlvd. E. of Rockies | gal. | 20.63 | — |
| | dms., l.c.l., same basis | gal. | 20.73 | 20.84 |
| | USP, tax-free, dms., c.l., dlvd. E. of Rockies | gal. | .68 | — |


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n-butyric acid
isobutyric acid
2-ethylhexoic acid
ethyl alcohol
n-butyl alcohol
isobutyl alcohol
2-ethylhexyl alcohol
mixed octyl alcohol
isobutyronitrile
manganese sulphate
(Tecmangam)
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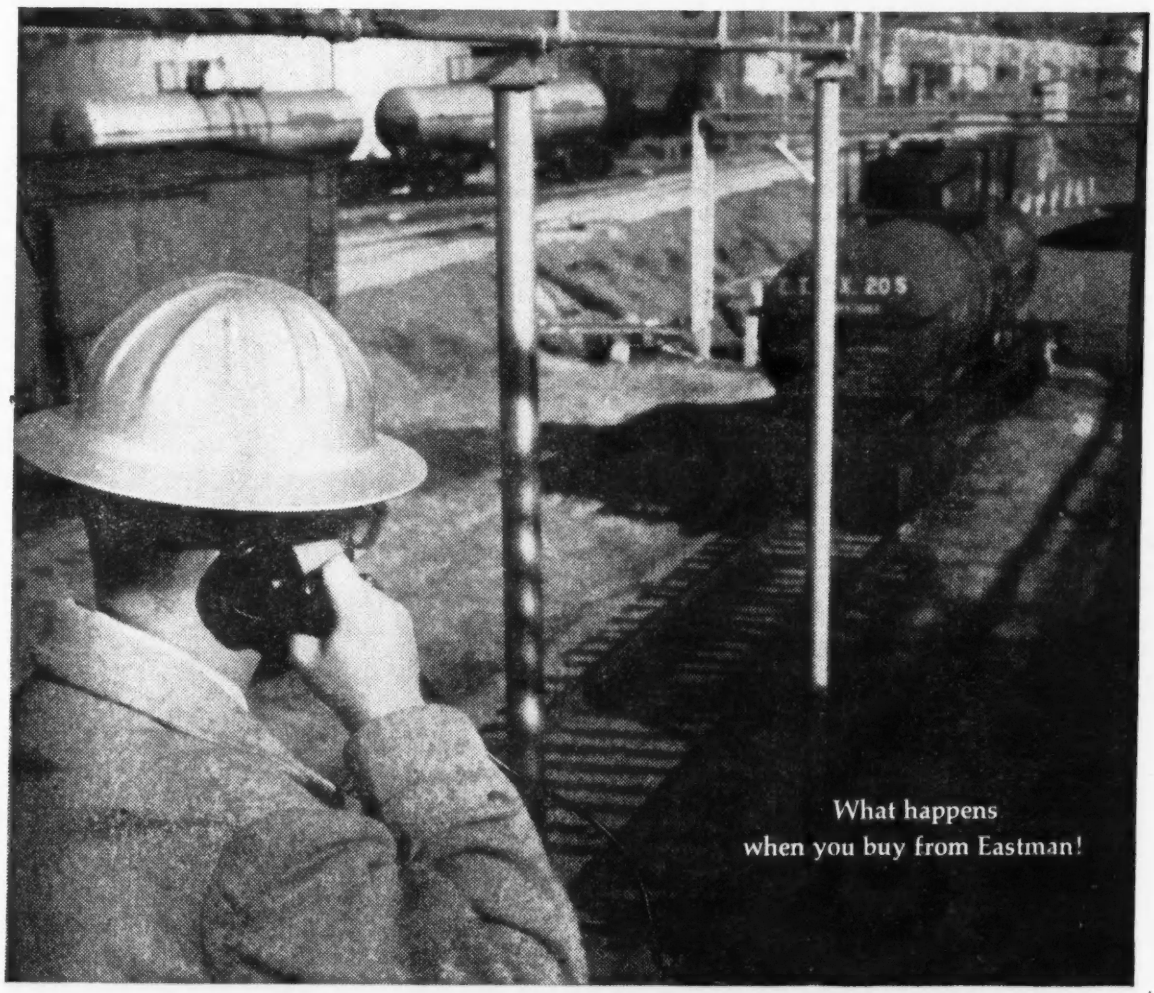


# Long distance unloading

"I guess I've personally unloaded or supervised the unloading of better than 20,000 tank cars," said our materials handling supervisor, "but this was the first time I ever tried to unload one by long distance telephone.

"The plant manager who called was considerably embarrassed by the whole situation. He runs a small, efficient processing plant and is a good customer of ours for Tecmangam® (manganese sulfate), which he uses in his line of agricultural products. But the particular material he wanted to unload was not Tecmangam. In fact it did not even originate at our plant. It came from another supplier whom he had been unable to reach by telephone.

"The situation was further complicated by the fact that not only was his unloading foreman off sick but this was the first time they had ever received this particular material. He said he did have a fresh-out-of-college chemical engineer handy, but this young man had assured him that tank car unloading had not been a prerequisite for his degree. I thought maybe I could work it out with him over the telephone anyway, so I asked if I could talk to the new alumnus.

"Well, I outlined the entire procedure covering everything from foot valves to vent seals. Then he said, 'Would you run that by again?'

"So I did, several times. And about fifteen dollars later we had the tank car hooked up and unloading. And I now know a proud young chemical engineer who could probably unload a tank car blindfolded—because he had to learn it the hard way."

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Western Sales Representative: **Wilson & Geo. Meyer & Company**, San Francisco; Los Angeles; Portland; Salt Lake City; Seattle.

## Ethyl Alcohol—Fusel Oil

| | | | |
|---|---|---|---|
| Ethyl alcohol, 190 pf., USP, tax free, dms., t.c.l., same basis | gal. | .78 | .89 |
| tanks, same basis | gal. | .52 | — |
| Ethyl alcohol, absolute 200 pf., tax paid, dms. dlvd E of Rockies | gal | 21.75 | — |
| dms., t.c.l., same basis | gal. | 21.85 | 21.96 |
| tanks, same basis | gal | 21.59 | — |
| Ethyl alcohol denatured (see Denatured alcohol, ethyl). | | | |
| Ethyl aminobenzoate, USP (see Benzocaine). | | | |
| Ethyl amyl ketone, dms., c.l., dlvd. | lb. | .20 | — |
| dms., t.c.l., same basis | lb. | .21½ | — |
| tanks, same basis | lb. | .17½ | — |
| Ethyl benzoate, bbls. | lb. | .75 | 1.00 |
| Ethyl bromide, tech., 98%, dms., c.l., frt. alld. E | lb. | .43 | — |
| dms., t.c.l., frt. alld. E | lb. | .45 | — |
| tanks, frt. alld. E | lb. | .40 | — |
| 2-Ethyl butyl alcohol, dms., c.l., works | lb. | .30 | — |
| dms., t.c.l., works | lb. | .30¾ | — |
| tanks, works | lb. | .28 | — |
| Ethyl butyl ketone, dms., c.l., t.l., works | lb. | .36 | — |
| dms., t.c.l., t.l., works | lb. | .36¾ | — |
| tanks works | lb. | .34 | — |
| Ethyl butyrate, dms., works | lb. | .85 | 1.00 |
| Ethyl carbamate (see Urethane) | | | |
| Ethyl cellulose, vis., 4 cps., ngs., 5,000 lb lots or more, frt. alld E | lb. | .73 | — |
| bgs., smaller lots frt alld E | lb. | .75 | — |
| vis. 10, 20, 50, 100, 150 cps., bgs., 5,000-lb. lots or more, frt. alld. E | lb. | .68 | — |
| Ethyl cellulose, vis., 10,20,50,100,150 cps., bgs., smaller lots, frt. alld. E | lb. | .70 | — |
| Ethyl chloride, tech., cyls., works | lb. | .20 | .22 |
| dms., works | lb. | .18 | .20 |
| tanks, works | lb. | .10 | — |
| Ethyl cinnamate, cns. | lb. | 3.35 | 3.50 |
| Ethyl ethanolamines, mixed, dms., c.l., dlvd. E | lb. | .43½ | — |
| dms., t.c.l., dlvd. E | lb. | .44½ | — |
| tanks, dlvd. E | lb. | .41½ | — |
| Ethyl ether, absolute, ACS, dms. | lb. | .27 | — |
| Anesthesia, USP, dealers, 1-lb. cns. | lb. | 1.01 | — |
| ½-lb. cns. | lb. | 1.09 | — |
| ¼-lb. cns. | lb. | 1.21 | — |
| Indust., dms., c.l., dlvd. | lb. | .13½ | — |
| dms., t.c.l., dlvd. E | lb. | .15 | — |
| tanks, dlvd E | lb. | .11 | — |
| 2-Ethyl hexoic acid, dms., c.l., t.l., dlvd. E | lb. | .37 | — |
| dms., t.c.l., t.t.l., dlvd. E | lb. | .38½ | — |
| tanks, dlvd E. | lb. | .34½ | — |
| 2-Ethyl hexoic acid 1c. higher W. of Rockies. | | | |
| 2-Ethylhexyl acrylate, dms., c.l., t.l., straight or mixed frt. alld. E | lb. | .39½ | — |
| dms., t.t.l., same basis | lb. | .40½ | — |
| tanks, same basis | lb. | .37 | — |
| 2-Ethylhexyl alcohol, dms., c.l., dlvd. E | lb. | .20½ | — |
| dms., t.c.l., dlvd. E | lb. | .22 | — |
| tanks, dlvd. E | lb. | .18 | — |
| Ethyl iodide, cbys., works | lb. | 3.30 | — |
| Ethyl methacrylate, dms., c.l., frt. equald | lb. | .52 | — |
| dms., t.t.l., frt. equald | lb. | .52½ | — |
| tanks, frt. equald | lb. | .50 | — |
| Ethyl morphine hydrochloride, USP, bots | oz. | 11.85 | — |
| Ethyl oenanthate, dms. | lb. | 1.05 | 1.30 |
| Ethyl oxalate (see Diethyl oxalate). | | | |
| Ethyl silicate, dist. (see Tetraethyl orthosilicate). | | | |
| Ethyl silicate 40% available $SiO_2$, dms., c.l., dlvd. E | lb. | .49 | — |
| dms., t.c.l., dlvd. E | lb. | .50½ | — |
| tanks, dlvd. E | lb. | .47 | — |
| N-Ethyl-a-naphthylamine, dms., works | lb. | 1.04 | — |
| N-Ethyl-m-toluidine, tech., liq., tanks, frt. alld | lb. | .83 | — |
| N-Ethyl-o-toluidine, bbls. | lb. | .88 | — |
| Ethylamine (see Mono-, Di-, or Tri-) | | | |
| N-Ethylaniline, dms., c.l., frt. alld. | lb. | .57 | — |
| dms., t.c.l., frt. alld. | lb. | .58 | — |
| tanks, frt. alld | lb. | .55 | — |
| Ethylbenzene, 99% dms., c.l., t.l., frt. equald | lb. | .14 | — |
| dms., t.c.l., same basis | lb. | .16 | — |
| tanks, same basis | lb. | .11½ | — |
| Ethylene, contract refy gate | lb. | .0475 | .052o |
| Ethylene dibromide dms., c.l., frt. equald | lb. | .30½ | — |
| dms., t.c.l., frt. equald | lb. | .31½ | — |
| tanks, frt. equald | lb. | .28½ | — |
| Ethylene dichloride dms., c.l., dlvd. | lb | .11½ | — |
| dms., t.c.l., same basis | lb. | .13 | — |
| tanks, same basis | lb. | .09 | — |
| Ethylene dichloride prices W. of Rockies, 1c. per lb higher | | | |
| Ethylene glycol, indust., dms., c.l., dlvd. E | lb. | .18 | — |
| dms., t.c.l., same basis | lb. | .17½ | — |
| tanks, same basis | lb. | .13½ | — |
| Ethylene glycol monobutyl ether, dms. c.l., dlvd. E | lb. | .22 | — |
| dms., t.c.l., dlvd. E | lb. | .23½ | — |
| tanks, dlvd. E | lb. | .19½ | — |
| Ethylene glycol monoethyl ether, dms. c.l., dlvd. E | lb. | .21 | — |
| dms., t.c.l., dlvd. E | lb. | .22½ | — |
| tanks, dlvd E | lb. | .18½ | — |
| Ethylene glycol monoethyl ether acetate, dms., c.l., dlvd. E | lb. | .19½ | — |
| dms., t.c.l., dlvd. E | lb. | .21 | — |
| tanks, dlvd. E | lb. | .17 | — |
| Ethylene glycol monomethyl etner, dms., c.l., dlvd. E | lb. | .21 | — |
| dms., t.c.l., dlvd. E | lb. | .22½ | — |
| tanks, dlvd E | lb. | .18½ | — |
| Ethylene glycol monomethyl ether acetate, dms., c.l., works | lb. | .29 | — |
| dms., t.c.l., works | lb. | .29¾ | — |
| tanks, works | lb. | .27 | — |
| Ethylene glycol monostearate, flake, 150-lb. ctn | lb. | .33 | — |
| Ethylene oxide, dms., c.l., dlvd E. | lb. | .21½ | — |
| dms., t.c.l., dlvd. E | lb. | .24½ | — |
| tanks, dlvd E | lb. | .15½ | — |
| Ethylene trichloride (see Trichloroethylene) | | | |
| Ethylenediamine, 85-88%, dms., c.l., dlvd. E., 100% basis | lb. | .40 | — |
| dms. t.c.l. dlvd E., 100% basis. | lb. | .41½ | — |
| tanks, dlvd. E., 100% basis | lb. | .38 | — |
| Ethylvanillin, 100-lb. fib. dms., 500-lb. | lb. | 6.75 | — |
| less than 500-lb. | lb. | 7.40 | — |
| Eucalyptol, USP, cns., dms. | lb. | .85 | 1.40 |
| Eucalyptus oil NF rectified, 70-75% dms. | lb. | .45 | — |
| NF, rectified, 80-85%, dms. | lb. | .53 | .62 |
| Eugenol, tech., dms. | lb. | 0.00 | — |
| USP, dms. | lb. | 1.90 | — |
| Euphorbia herb, bls. | lb. | .12 | .15 |

## F

| | | | |
|---|---|---|---|
| F salt paste, tech., dms., works | lb. | 2.50 | — |
| Fennel oil, sweet, USP, cns. | lb. | 2.60 | — |
| Fennel seed, Argentine, bgs. | lb. | .17½ | — |
| French, light, bgs. | lb. | .16½ | — |
| Indian, light, bgs. | lb. | .16½ | — |
| Yugoslav, light, bgs. | lb. | .17½ | — |
| Fenugreek seed, Moroccan, bgs. | lb. | .12 | — |
| Ferric chloride, anhyd., tech., 350-lb. dms., c.l., works 100 lbs. | | 8.00 | — |
| dms., t.c.l., works 100 lbs. | | 9.00 | — |
| Indust., cryst., bbls., c.l., works, 100 lbs. | | 5.25 | 6.75 |
| bbls. t.c.l., works 100 lbs | | 5.75 | 7.25 |
| Ferric chloride 42° Be., photo grade, cbys., c.l. works 100 lbs. | | 7.25 | 8.25 |
| sewage grade, tanks, frt. equald. 100% basis 100 lbs. | | 4.00 | — |
| USP cryst. dms., t.l., works | lb. | .08½ | — |
| Ferric citrate, gran., dms. | lb. | .86 | — |
| Ferric hypophosphite, NF, 175-lb. dm | lb. | 4.25 | — |
| Ferric naphthenate, liq., 6% Fe, dms., frt. alld | lb. | .28¼ | — |
| Ferric oxalate, tech., gran., 50-lb. dm., f.o.b. works E | lb. | 1.30 | — |
| Ferric oxides (see iron oxides). | | | |
| Ferric phosphate, NF, soluble, gran. pearls, cs | lb. | .72 | .75 |
| Ferric pyrophosphate, NF VII, soluble, gran. pearls, 225-lb. dm. | lb. | .79 | — |
| Ferric resinate, dms., ton lots, frt. alld | lb. | .45 | — |
| Ferric stearate dms., c.l., frt. alld. | lb. | .39 | — |
| dms., t.c.l., frt. alld | lb. | .40 | .44 |
| Ferric sulfate, partly hydrated, bgs., c.l., works | ton. | 35.25 | — |
| bgs., t.c.l., works | ton. | 36.25 | 42.25 |
| bulk, c.l., works | ton. | 33.25 | — |
| Ferric-amonium citrate, NF, brown, gran., 100-lb. dms | lb. | .68 | — |
| NF, green, gran., 100-lb. dms., frt. equald | lb. | .68 | — |
| Ferric-ammonium oxalate, fine gran., dms | lb. | .27½ | .29½ |
| Ferric-potassium oxalate, fine gran., 250-lb dm., f.o.b. works | lb. | .32½ | — |
| Ferric-sodium oxalate, fine gran., dms | lb. | .27½ | .29½ |
| Ferrous gluconate, USP, 200-lb. dm., frt. equald | lb. | .96 | — |
| Ferrous sulfate, gran., bgs., c.l., works | ton. | 34.50 | — |
| bgs., t.c.l., dlvd. Metropolitan area 100 lbs. | | 3.35 | 4.25 |
| bbls., c.l., works | ton. | 40.00 | — |
| bulk, c.l., works | ton. | 27.00 | — |
| USP, cryst., bbls., dms. | lb. | .09½ | .10 |
| Fir balsam, Canada, bbls. | gal. | 34.00 | 35.00 |
| Oregon, bbls. | gal. | 3.40 | 4.64 |
| Fir oil, Canada, cns. | lb. | 1.70 | 1.75 |
| Fish oil, refd., alkali, dms. | lb. | .1380 | .1430 |
| Kettle-bodied, dms. | lb. | .1530 | .1580 |
| Light-pressed, dms. | lb. | .1280 | .1330 |
| tanks | lb. | .1080 | — |
| Fishliver oil, nat., high potency, 100,000 to 1,500,000 A units per gram, dms 1,000,000 units. | | .13 | — |
| Fishmeal, dom., menhaden, 60% protein, grd., bgs., Atlantic and Gulf coasts | ton. | 118.00 | 120.00 |
| Fishscrap, dom., menhaden, dried, 60% protein, grd. bgs., Atlantic and Gulf coasts. | ton. | 114.00 | 116.00 |
| Fleaseed (see Psyllium seed) | | | |
| Folic acid, USP, nots., fib. dms., kilo lots or more | gram. | .25 | — |
| 10% feed grade fib dms., 3 kilos or more | kilo. | 30.00 | 44.00 |
| Formaldehyde, 37% (inhibited, 12 to 15% methanol), USP, dms., c.l. dlvd | lb. | .0695 | — |
| tanks, dlvd. | lb. | .0405 | — |
| Formaldehyde, methanol-free (uninhibited), tanks, dlvd | lb. | .0375 | — |
| Formic acid, 85%, cbys. c.l., works | lb. | .1570 | — |
| cbys., t.c.l., works | lb. | .1620 | .1720 |
| 90%, cbys., c.l., works | lb. | .1625 | — |
| cbys., t.c.l., works | lb. | .1675 | .1775 |
| Fringetree bark, bls | lb. | .65 | .70 |
| Fumaric acid, tech., 250-lb. dms., c.l., frt. equald | lb. | .23½ | — |
| dms., t.c.l., frt. equald | lb. | .24¾ | — |
| Fumaric acid in bags ½c. per lb. less. | | | |
| Furfural, dms. c.l., works | lb. | .13 | — |
| dms., t.c.l., works | lb. | .14 | — |
| tanks, dvd. E | lb. | .11½ | — |
| tanks, dlvd. W | lb. | .12½ | — |
| Furfuryl alcohol, cns., works | lb. | .28 | — |
| dms., c.l., t.l., Newark, N. J. | lb. | .19½ | — |
| dms., t.c.l., t.t.l., Newark, N. J. | lb. | .20½ | — |
| dms., c.l., t.l., Memphis, Tenn. | lb. | .18 | — |
| dms., t.c.l., t.t.l., Memphis, Tenn. | lb. | .19 | — |
| tanks, dlvd. E. of Denver | lb. | .175 | — |
| Fusel oil, refd. dms., c.l., dlvd | lb. | .18 | — |
| dms., t.c.l., dlvd. | lb. | .19½ | — |
| tanks, dlvd. | lb. | .15½ | — |

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Celanese CHEMICALS

## G

G salt, bbls., frt. alld., 100% basis lb. .73 - —
Gallic acid. NF VII, bbls., 1,000-lb. lots lb 2.00 - —
bbls., smaller lots lb 2.02 2.22
Tech., bbls., 1,000-lb. lots lb. 1.78 - —
bbls., smaller lots lb 1.80 2.00
Gamma acid, dry grd., bbls., frt. alld lb. 1.75 - —
Gammapicoline (see g-picoline).
Garlic oil, dom. bots. oz. 4.75 6.05
Imp., bots. oz. 4.50 5.00
Gaultheria oil (see Wintergreen oil).
Gelatin edible 75 AOAC test, bbls., c.l., dlvd lb. .55 - —
150 AOAC test, bbls., c.l., dlvd. lb. .64 - —
200 AOAC test, bbls., c.l. dlvd. lb. .70 - —
225 AOAC test, bbls., c.l. dlvd. lb. .74 - —
275 AOAC test, bbls., c.l., dlvd. lb. .82 - —
Gelsemium root, bls. lb. .30 - .35
Gentian root, bls. lb. .24 - —
Grd., bbls., bxs lb .30 - —
Powd. bbls. bxs. lb. .30 - —
Geraniol extra cns. dms. lb 1.75 2.40
Soap grade dms lb .90 1.75
Standard cns., dms. lb. 1.65 —
Synthetic dms lb 1.30 —
Geranium oil, Algerian, cns. lb. 21.00 -24.00
Bourbon, cns. lb. 15.00 -19.00
Turkish (see Palmarosa oil).
Geranyl acetate cns lb 1.90 2.70
Synthetic dms lb 1.45 —
Ginger oil, dist., bots. lb. 12.00 -14.00
Ginger oleoresin. NF from African root, bots lb 4.25 5.00
NF from Jamaican root, bots. lb. 7.75 - —
Ginger root, Cochin, bgs. lb. .20 - —
Jamaican, No. 3, bgs. lb. .26 - —
Nigerian, split, bgs. lb. .23 - —
Sierra Leone, bgs. lb. .32 - —
Glauber's salt (see Sodium sulfate).
Gluconic acid tech. 50% dms., c.l., t.l., f.o.b. works lb. .20 - —
dms., l.c.l., f.o.b. works lb .21 - —
tanks, f.o.b. works lb. .17 - —
Glue, bone, extracted, dry bone, 86 jellygrams, bgs., c.l., dlvd lb. .16 - —
131 jellygrams, bgs., c.l., same basis lb. .16½ - —
164 jellygrams, bgs., c.l., same basis lb. .18½ - —
191 jellygrams, bgs. c.l., same basis lb. .19½ - —
222 jellygrams, bgs., c.l., same basis lb. .21 - —
Glue, green, 40 jellygrams, bgs., c.l., same basis lb. .16 - —
86 jellygrams, bgs., c.l., same basis lb. .16 - —
113 jellygrams, bgs., c.l., same basis lb. .16½ - —
Glue, green, bone, 135 jellygrams, bgs., c.l., same basis lb. .17½ - —
164 jellygrams, bgs., c.l., same basis lb. .18½ - —
180 jellygrams, bgs., c.l., same basis lb. .19½ - —
200 jellygrams, bgs., c.l., same basis lb. .20½ - —
Bone glue, l.c.l., prices 2c. higher.
Glue hide, 70-94 jellygrams, bgs., c.l., dlvd lb. .18 - —
95-149, bgs., c.l., dlvd lb. .19 - —
122-149, bgs., c.l., same basis lb. .20½ - —
150-177, bgs., c.l., same basis lb. .22½ - —
178-206, bgs., c.l. same basis lb. .25 - —
207-236, bgs., c.l. same basis lb. .28 - —
237-266, bgs., c.l., same basis lb. .30½ - —
267-295, bgs., c.l., same basis lb. .32½ - —
299-330, bgs., c.l., same basis lb. .34½ - —
331-362, bgs., c.l., same basis lb. .36½ - —
363-394, bgs., c.l., same basis lb. .38 - —
395-427, bgs., c.l., same basis lb. .40 - —
428-460, bgs., c.l., same basis lb. .42 - —
461-494, bgs., c.l., same basis lb. .44 - —
495-529, bgs., c.l., same basis lb. .46 - —
Hide glue, l.c.l. prices 2c higher.
l-Glutamic acid, 99½%, fib dms., 100-lb lots, frt. alld lb. 1.80 - —
fib. dms., 25-lb. lots, frt. alld. lb 1.88 - —
l-Glutamine, bots., 1-9 kilo lots, kilo. 150.00 -300.00
Bots., 50-kilo lots kilo 100.00 - —
Bots., 500-kilo lots kilo 75.00 - —
Glycerine, dom., nat., crude, saponification 88%, tanks dlvd. lb. .13½ - .14
nat., crude, soaplye, 80%, tanks, dlvd lb. .12½ - .12¾
nat., refd., USP, CP, 99%, dms., c.l., dlvd lb. .26⅜ - —
dms., l.c.l., dlvd lb. .27⅛ - —
tanks, dlvd. lb. .24⅜ - —
Dom., nat., refd., USP, CP, 96%, dms., c.l., dlvd lb. .25½ - —
dms., l.c.l., dlvd. lb. .26⅛ - —
tanks, dlvd. lb. .23¾ - —
nat., high gravity, dms., c.l., dlvd lb. .26⅛ - —
dms., l.c.l., dlvd lb. .27 - —
tanks, dlvd. lb. .24½ - —
Dom., refd., syn., 99.5%, dms., c.l., dlvd lb. .26½ - —
dms., l.c.l., dlvd lb. .27⅛ - —
tanks, dlvd. lb. .24¾ - —
Imp., nat., crude, soapiye, 80%, c.i.f. lb. .12½ - —
Glycine (see Aminoacetic acid).
Glycerol (see Glycerine).
Glyceryl guaiacolate, 100-lb. fib. dm., dlvd lb. 4.00 - —
25-lb. fib. dm., dlvd. lb. 4.25 - —
Glycolic acid (see Hydroxyacetic acid).
No. 2, 90-95%, bgs., fib. dms., ex whse lb. .29 - .31
Glycolonitrile, 70%, aqueous, dms., c.l., t.l., works lb .40 - —
dms., l.c.l., same basis lb. .42 - —
tanks, same basis lb. .39 - —
Glyoxal, 30%, dms., c.l., works lb .20½ - —
dms., l.c.l., works lb. .21¼ - —
tanks, works lb. .18 - —
Golden seal root, NF, tested, bls. lb 2.90 3.00
Gramicidin, 1 to 5 kilos, f.o.b works. gram 4.25 - —
Grapefruit oil, dms. lb. 2.60 - 2.75
Graphite, amorp., powd., bgs., fib. dms., ex whse lb. .06 - .09⅛
Cryst., 88-90%, powd., bgs., fib. dms., ex whse lb. .19 - .21½
90-92%, powd., bgs., fib dms., ex whse lb. .21 - .24½
Cryst., 95-97%, powd., bgs., fib. dms., ex whse lb. .29 - .31½
Flake, No. 1, 90-95%, bgs., fib. dms., ex whse lb. .29 - .31
Grease, white, choice all hog, tanks, dlvd lb. .08¼ - —
Yellow, tanks, dlvd. lb. .05¾ - —
Grease oil, No. 1, dms., c.l., f.o.b. Chicago lb. .12 - —
dms., l.c.l., same basis lb. .14 - —
tankcars, same basis lb. .10½ - —
Grease oil, extra winter, strained, dms., c.l. Chicago lb. .15 - —
dms., l.c.l., same basis lb. .17 - —
tankcars, same basis lb. .13½ - —
Prime, burning, dms., c.l., same basis, Chicago lb. .17 - —
dms., l.c.l., same basis lb. .19 - —
tankcars, same basis lb. .15½ - —
Other areas ¾c. higher, except Texas and West Coast, 1¼c. higher.

**GREEN PIGMENTS**
Green pigment quotations are listed individually. For example, prices on Green, chrome, may be found in the C's under Chrome green

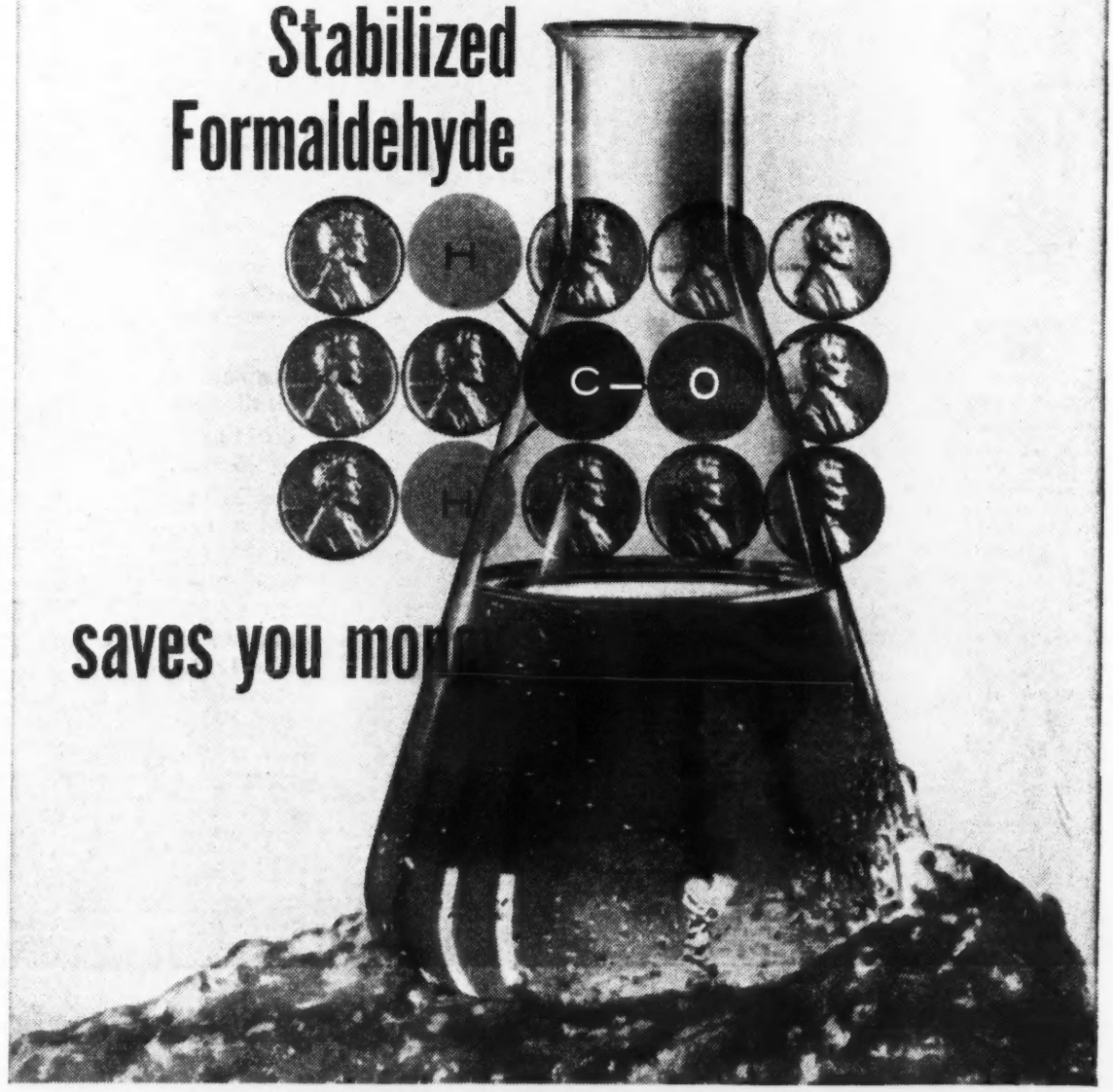
Grindelia robusta herb, bls lb. .40 —
Guaiacol NF cryst. dms. tins lb 2.10 2.15
liq., cbys., dms lb. 2.30 - 2.40
Guaiacwood oil cns lb .65 .80
Guaiacol carbonate NF VII, dms lb 3.40 3.45
Guar gum, edible, bgs., c.l., f.o.b. shipt. pt lb. .38 - —
bgs., l.c.l. same basis lb. .40 - .42
Indust., bgs., c.l., same basis lb. .32 - —
Tech., bgs., c.l., same basis lb. .30 - —

**GUMS**
Gum quotations are listed individually. For example, prices on Gum, Dammar, may be found in the D's under Dammar gum

## H

H acid, dry, bbls. c.l., frt. alld. 100% basis lb 1.00 - —
bbls., l.c.l., same basis lb 1.05 - —
Hansa yellow 10 G, bbls., dlvd. E. of Rockies lb 2.45 - —
Hansa G yellow, pigment, bbls. lb. 2.20 - —
Hawthorn berries, bgs. lb. .18 - .20
Heliotropin, 100-lb. lots, dms. lb. 2.60 - 3.40
Hellebore root dom., green, bls lb. .70 - .75
Helonias root, bls. lb. 1.50 - —
Hemlock oil, cns. lb. 2.55 - 3.00
Henbane leaves, bls lb. .40 - .45
Heptachlor dms., c.l., t.l., frt. alld., 100% basis lb. .96 - —
Heptane, indust., tankcars, New Jersey and New York gal. .20 - —
Houston, Texas gal. .1625 - —
Hesperidin, purif., 50 kilos, f.o.b. works kilo. 19.70 - —
Hesperidin methylchalcone, 50 kilos, f.o.b. works kilo. 49.25 - —
Hexachlorophene dms., 1,100 lbs. or more lb 1.84 - —
dms. to 1,100 lbs. lb. 1.94 - —
Hexalin (see Cyclohexanol).
Hexamethylenetetramine tech. bgs., 20,000-lb lots or more, Perth Amboy or New York City lb .233 —
bgs., 1,000-19,999-lb. lots, same basis lb. .243 - —
bgs. smaller lots same basis lb. .253 - —
fib. dms., 1,000-lb. lots or more, same basis lb. .250 - —
fib dms., smaller lots, same basis lb. .253 - —
Hexamethylenetetramine, USP, bgs., 500 lbs. or more, f.o.b. Fords, N. J., dlvd. New York City and Philadelphia lb. .42½ - —
bgs., smaller lots same basis lb .43½ 48½
Hexane, industrial, tankcars, New Jersey and New York gal. .20 —
Houston Texas gal. .16 —
i-Hexanol, dms., c.l., works lb .35 —
dms., l.c.l., works lb 35¾ —
tanks, works lb .33 —
Hexyl cinnamic aldehyde, dms lb 3.95 4.00
n-Hexyl methacrylate, dms., c.l., works lb. 75½ —
dms., l.c.l., works lb. .76 —
Hexyl salicylate dms. lb. 1.70 1.75
Hexylene glycol, dms., c.l., dlvd lb. .17½ —
dms., l.c.l., d'vd lb. .19 —
tanks, dlvd lb. .15 - —
Hexylresorcinol, USP, dms., 25-lb. lots or more dlvd lb 14.00 —
dms. smaller lots, dlvd lb. 14.50 - —
Homatropine hydrobromide, USP, bots oz. 3.25 - —
methylbromide, USP, bots oz. 3.00 - —
Hoofmeal, 17-18% ammonia bulk, c.l. Chicago unit-ton 6.75 —
Horehound herb, bls lb. .18 .20
Hydrastis (see Goldenseal)
Hydrazine hydrate, 85%, 240-lb. dms., c.l., works lb. 1.28 - —
240-lb. dms., l.c.l., works. lb. 1.35 - 1.55
Hydriodic acid, purif., 47%, 2-cbys., f.o.b. works lb 2.92 —


# HEYDEN'S Stabilized Formaldehyde

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FOR A CHEMICAL CONVERSION OF PENNIES TO DOLLARS—CHECK THESE FIVE CRITICAL ADVANTAGES

1. *Lower raw material costs possible:* A switch from regular 37% Formaldehyde Solution U.S.P. (6% to 7.5% methanol) to Heyden Stabilized 37% Methanol-Free Formaldehyde saves $90.00 on every 30,000 pound tank truck order with no changes in your bulk-storage facilities required.

2. *Lower storage costs:* Less steam and heating required since Heyden Stabilized Formaldehyde can be stored at much lower temperatures.

3. *Lower control and inventory costs:* Lower storage temperatures result in a much slower acidity build-up; result in a formaldehyde which maintains its uniformity on prolonged storage.

4. *Lower maintenance costs:* Slower acidity build-up prolongs life of storage equipment. Greater stability to precipitation of paraformaldehyde results in less sludge removal from tank bottoms.

5. *Improved end-products:* Since the uniformity of Stabilized Formaldehyde is maintained on prolonged storage, improved end-products can be expected.

Heyden Stabilized Formaldehyde is competitively priced and available now in production quantities. Information covering complete specification data on Heyden Stabilized Formaldehyde is available. Write for your copy now.

**HEYDEN** CHEMICAL DIVISION
342 MADISON AVE., NEW YORK 17, N. Y.
HEYDEN NEWPORT CHEMICAL CORPORATION

## Hydroabietyl Alcohol—Kaolin

**Hydroabietyl alcohol, tech., solid,**
dms., c.l., dlvd. zone 1 lb. .29¼- —
dms., l.c.l., dlvd zone 1 lb. .29¾- .30¼
tanks, dlvd zone 1 lb. .27¼- —

Zone 1 for hydroabietyl alcohol comprises all of continental US except Ariz., Calif., Colo., Idaho, Mont., Nev., N. M., Ore., Utah, Wash., Wyo., and the western part of Texas.

**Hydrobromic acid, medicinal, 48%,**
chys. frt equald lb. .48 - .56

**Hydrochloric acid, anhyd** (see Hydrogen chloride).

**Hydrochloric acid, 18°**
cnys., c.l., works 100 lbs 2.50 - —
cbys., l.c.l., dlvd. Metropolitan area 100 lbs 2.90 - 3.05
tanks, works, frt. equald ton 28.00 - —
20°, chys., c.l., works 100 lbs. 2.75 - —
cbys., l.c.l., dlvd. Metropolitan area 100 lbs. 3.15 - —
20°, tanks, works, frt. equald ton 30.00 - —
22°, cbys., c.l., works 100 lbs. 3.25 - —
cbys. l.c.l., dlvd Metropolitan area 100 lbs 3.65 - —
tanks, works, frt. equald ton 35.00 - —

**Hydrochloric acid CP, USP, consumers.** chys. extra, c.l., works lb. .15¾- —
cbys. l.c.l., same basis lb. .17¼- .17¾
5-pint bots., extra cs., c.l., same basis lb. .20¾- —
lb. .20¾- —

**Hydrocortisone acetate, bulk, bots.,**
kilo lots or more gram. .85 - .90

**Hydrocortisone alcohol, bulk, bots.,**
kilo lots or more gram. 1.00 - 1.90

**Hydrocyanic acid, dilute, NF, 2%,**
5-pint bots., f.o.b. works, pint. .70 - —

**Hydrofluoric acid, anhyd.** (see Hydrogen fluoride).

**Hydrofluoric acid, aqueous, 70%,**
55-gal. or 30-gal. dms., c.l., t.l., dlvd. 100 lbs. 17.25 - —
55-gal. dms., l.c.l., l.t.l., dlvd. 100 lbs. 18.75 - —
20-gal. dms., c.l., t.l., dlvd. 100 lbs. 19.00 - —
20-gal., dms., l.c.l., l.t.l., dlvd. 100 lbs. 20.50 - —
tanks, works frt. equald 100 lbs. 11.50 - —

Delivered prices apply to all states east of Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Washington and Wyoming. In those states add $2.75 per cwt. for drum delivery.

**Hydrofluosilicic acid, dms., works,**
30% basis lb. .07 - —

**Hydrofuramide, dms.,** tib. ctns., works lb. .30 - .40
50-lb. cyls., l.c.l., works lb. .55 - .60

**Hydrogen chloride, anhyd., 50-lb.**
cyls. l.c.l., works lb. .45 - —

**Hydrogen cyanide, liq., 98%, tanks,**
works lb. .13 - —

**Hydrogen fluoride, anhyd., cyls.,**
dlvd. E lb. .29 - .31
cyls., dlvd. W. lb. .37 - —
tanks, works lb. .16 - —

**Hydrogen peroxide, 35%, dms., c.l.,**
dlvd lb. .202 - —
dms., l.c.l., dlvd. lb. .211 - —
tanks, dlvd. lb. .1800- —

**Hydroquinone, photo grade, dms.,**
50-lbs., f.o.b. works lb. 1.10 - —
Tech., dms., c.l., dlvd. lb. .82½- —
dms., l.c.l. dlvd. lb. .84½- —

**Hydroquinone monomethyl ether,**
dms., t.l. dlvd lb. 2.59 - —
dms., l.t.l., dlvd. lb. 2.61 - —

**Hydroxyacetic acid, tech., 70%**
dms. Philadelphia and Chicago lb. .11 - —
tanks Belle W. Va lb .073 - —

**Hydroxycitronellal, cns.** lb. 5.65 - 6.00

**Hydroxyethyl cellulose, fib., dms.,**
20,000-lb. lots or more, f.o.b. shipping point lb. .69 - —
fib dms. 2,000 to 19,999-lb lots, same basis lb. .77 - —

**Hydroxyethyl cellulose, fib., dms.,**
100 to 1,999-lb. lots, basis lb. .81 - —
fib. dms., smaller lots, same lb. 1.01 - —

**Hyoscine salts** (see Scopolamine).

**Hyoscyamine hydrobromide, bots.** oz. 7.75 8.50
**Hyoscyamine sulfate, bots** oz. 7.75 - 8.50

**Hypophosphorous acid, purit., 50%,**
10-chys. f.o.b works lb 1.95 - —
NF 50%, 10-cbys., same basis lb. 1.35 - —

## I

**Ichthammol, NF, dms.** lb. .75 - 1.05

**Indigo** (see Dyes, Coaltar, 1171 indigo, syn.).

**Indole, CP, bots** lb. 13.65 -15.00

**Inositol, 50-100 lb. dms., 1,000 lbs. or**
more, dlvd lb. 4.50 - —
50-lb. dms., less than 1,000 lb., dlvd lb. 4.75 - —
10 lb. cns., 10-50 lbs., dlvd. lb. 5.00 - —
5 lb. bots., dlvd. lb. 5.25 - —

**Insect flowers** (see Pyrethrum).

**Iodine, crude, kgs.** lb. 1.10 - —
Resub., USP, dms., f.o.b. works lb. 2.20 - 2.21

**Iodochlorohydroquinolin, USP, dms.** lb. 3.60 - —

**Iodoform, NF, dms., 300-lbs., fo.b.**
works lb. 4.90 - —
dms., 100-lb., same basis lb. 5.05 - —

**a-Ionone, cns.** lb. 4.60 - 5.75

**b-Ionone, cns.** lb. 4.15 - 6.15

**Ipecac root, whole, bgs.** lb. 8.00 - 8.50
Powd., bbls., bxs lb. 9.50 -10.00

**Irish moss, bleached, prime, bls.** lb. .35 - —

**Iron blue, alkali-resisting, bbls., c.l.,**
dlvd. E lb. .60 - —
bbls., l.c.l. ton lots, same basis. lb. .61 - —
bbls., smaller lots, same basis. lb. .62 - —
Dom., reg. bbls., c.l., dlvd. E lb. .55 - —
alkali-resistant, dom., reg., bbls., c.l., ton lots, same basis lb. .56 - —
bbls. l.c.l., smaller lots, same basis lb. .57 - —
Imp., British, reg., bbls. c.l. dlvd. E lb. .48 - —
bbls., l.c.l., ton lots, same basis lb. .49 - —
bbls., l.c.l., smaller lots, same basis lb. .50 - —

**Iron blue dlvd. prices 1c. higher for Pacific Coast states: Wash., Ore., Cal., N. M., Ariz., Mont. Wyo. Utah, Col and Nev.**

**Iron compounds** (see Ferric or Ferrous).

**Iron oxide, black, pure, bgs., c.l.,**
works lb. .14¾- —
bgs., l.c.l., works lb. .15 - —

**Iron oxide, brown, pure, bgs., c.l.,**
works lb. .14¼- —
bgs., l.c.l., works lb. .14½- —

**Iron oxide, metallic, brown, bgs.,**
works lb. .05½- —

**Iron oxide, Persian Gulf, red., bgs.,**
c.l., works lb. .08¾- —

**Iron oxide, red, dom., pure bgs.,**
Bethlehem, E. St. Louis, New York City lb. .14¼- —

**Iron oxide, red, nat., 75-85% ferric**
oxide, bgs., c.l., works lb. .06¼- —
bgs., l.c.l., works lb. .06½- —

**Iron oxide, Spanish red, bbls., c.l.,**
ex dock lb. .05¾ Nom.
bbls., l.c.l., ex dock lb. .06 Nom.
bbls., l.c.l., ex whse. New York. lb. .06½ Nom.

**Iron oxide, yellow, nat., French type,**
bgs., c.l., works lb. .06¾- .07
Peruvian type, bgs. l.c.l lb. .023 - .024

**Iron oxide, yellow, pure, light lemon**
shade bgs. c.l. works lb. .12¼- —
other shades, same basis lb. .12 - .12½

**Isoamyl alcohol, dms., c.l., works,**
frt. alld E lb. .27½- —
dms., l.c.l., same basis lb. .29 - —
tanks, same basis lb. .25 - —

**Isoborneol, cns** lb. 1.44 - 1.80

**Isobornyl acetate, cns** lb. .46 - .56

**Isobornyl formate, dms** lb. 1.15 - 1.20

**Isobornyl propionate, dms** lb. 1.20 - 1.25

**Isobutyl acetate, perfume grade,**
cns lb. .30 - .35
Solvent grade, dms., c.l., dlvd. E, of Rockies lb. .15¼- —
dms., l.c.l., same basis lb. .16¾- —
tanks, same basis lb. .12¾- —

**Isobutyl alcohol, dms., c.l., dlvd** lb. .15½- —
dms., l.c.l., dlvd. lb. .17 - —
tanks, dlvd lb. .13 - —

**Isobutylene, 99%, tanks, works** gal. .38 - —

**Isobutyl isobutyrate, dms., f.o.b.**
works lb. .75 - —

**Isobutyraldehyde, tech., dms., c.l.,**
dlvd lb. .22 - —
dms., l.c.l., dlvd. lb. .23½- —
tanks, dlvd. lb. .19½- —

**Isobutyric acid, dms. c.l., t.l., dlvd.**
lb. .35 - —
dms., l.c.l., t.t.l., same basis lb. .36½- —
t.c. t.t., same basis lb. .33 - —

**Isobutyronitrile, d.ns., c.l., dlvd,**
lb. .47½- —
dms., l.c.l., dlvd lb. .48½- —
tanks, dlvd lb. .45 - —

**Isoeugenol, cns.** lb. 3.10 - 3.40

**Isoniazid, powd., bulk, 50 kilos** kilo 12.00 - —

**Isonicotinic acid, 100-lb** tib. dms., works lb. 4.25 - —

**Isonicotinic acid hydrazide** (see Isoniazid).

**Iso-octyl alcohol, dms., c.l., dlvd. E.**
lb. .20½- —
dms., l.c.l., dlvd. E lb. .22 - —
tanks, dlvd. E lb. .18 - —

**Isopentane, comi. grade, tanks,**
f.o.b. Tex. refy gal. .16¼- —

**Isophorone, dms., c.l., dlvd.** lb. .25 - —
dms., l.c.l., dlvd. lb. .26½- —
tanks, dlvd lb. .22½- —

**Isophthalic acid, dms., c.l., works,**
frt. equald lb. .17 - —
dms., l.c.l., same basis lb. .18 - —

**Isopropanol** (see Isopropyl alcohol).

**Isopropyl acetate, dms., c.l., dlvd,**
lb. .14 - —
dms., l.c.l., same basis lb. .15½- —
tanks, same basis lb. .11½- —

**Isopropyl alcohol, refd., 91%, dms.,**
c.l., dlvd gal. .58 - —
dms., l.c.l., dlvd. gal. .68 - —
tanks, dlvd. gal. .42 - —

**Isopropyl alcohol, 95%, c.l., dms.,**
dlvd gal. .60 - —
dms., l.c.l., dlvd. gal. .70 - —
tanks, dlvd. gal. .44 - —
Anhyd., c.l., dlvd. gal. .62 - —
dms., l.c.l., dlvd. gal. .72 - —
tanks, dlvd gal. .46 - —

**Isopropyl benzene** (see Cumene).

**Isopropyl ether dms., c.l., dlvd** lb. .09½- —
dms., l.c.l., dlvd. lb. .11 - —
tanks, dlvd lb. .07 - —

**Isopropyl-N-(3-chlorophenyl) carbamate (CIPC) tech., dms.,**
c.l., t.l., works lb. 1.00 - —
dms., l.c.l., works lb. 1.05 - 1.25
tanks, works lb. .99 - —

**Isopropylamine** (see Mono, Di, or Tri-).

**Isopropyl-N-phenyl carbamate, 450-lb. fib. dms., c.l., t.l.,**
works lb. .75 - —
450-lb. fib. dms., l.c.l., works lb. .80 - .90

**Isoquinoline, dms., works** lb. .65 1.25

**Itaconic acid, refd., bgs. c.l., f.o.b.**
works lb. .39½- —
bgs., l.c.l., same basis lb. .41 - .43
Tech., bgs., c.l., same basis lb. .34½- —
bgs., 500-lbs. same basis lb. .36 - —

## J

**J acid, paste, bbls., works, 100% basis** lb. 2.70 - —
Powd., bbls., same basis lb. 2.75 - —

**Jalap root, NF, bls** lb. .55 - .60
NF, powd., bbls., bxs lb. .65 - .70

**Japan wax, cs.** lb. .29 - .31

**Juniper berries, bgs.** lb 16 - .17

**Juniper berry oil, NF, bots.** lb. 2.90 - 3.75
Twice rectified, bots. lb 3.25 - —

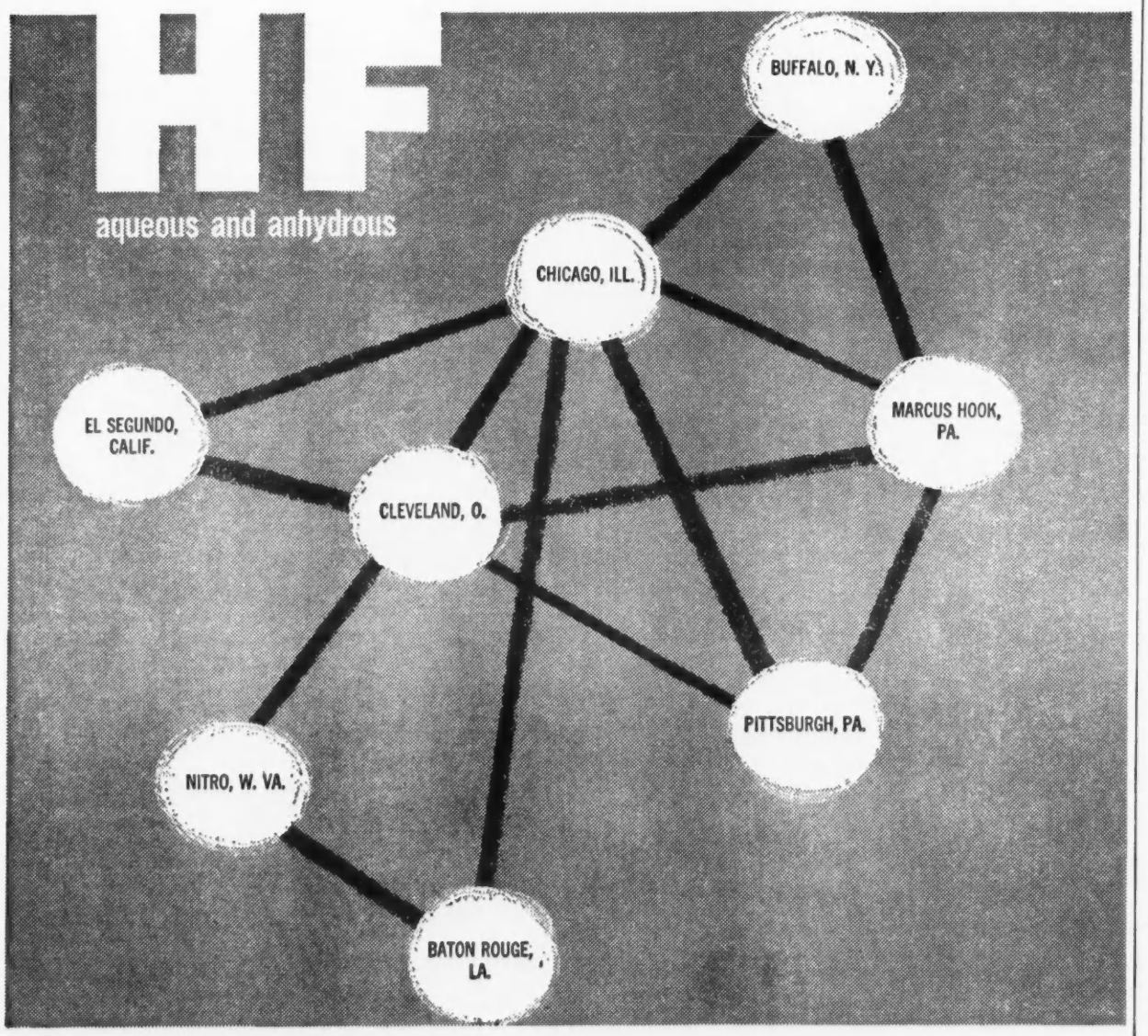
**Juniper tar oil, NF, dms.** lb. .42 - .60

**Juniper wood oil, tech., cns.** lb. .38 - .55

## K

**Kaolin** (see also Clay, China).

**Kaolin NF, powd., fib dms.** lb. .10 - .12
NF, colloidal, 50-lb. bgs. lb. .15½- .17½


**General Chemical's supply network is built around your needs for HF**

General Chemical's multiple production facilities for anhydrous and aqueous Hydrofluoric Acid make us the *only* supplier to offer shipment from more than one plant! Our plants are located at Baton Rouge, La.; Marcus Hook, Pa.; and Nitro, W. Va. Deliveries of aqueous acid are also made from five strategically-located bulk storage plants in Buffalo, Chicago, Cleveland, El Segundo (California), and Pittsburgh.

This smoothly-coordinated production and delivery system is backed by a long lifeline of raw material sources: fluorspar reserves, mines, mills, and large sulfuric acid capacity.

Call or write your nearest General Chemical office for information, prices, delivery. Make General Chemical your HQ for HF!

Allied Chemical

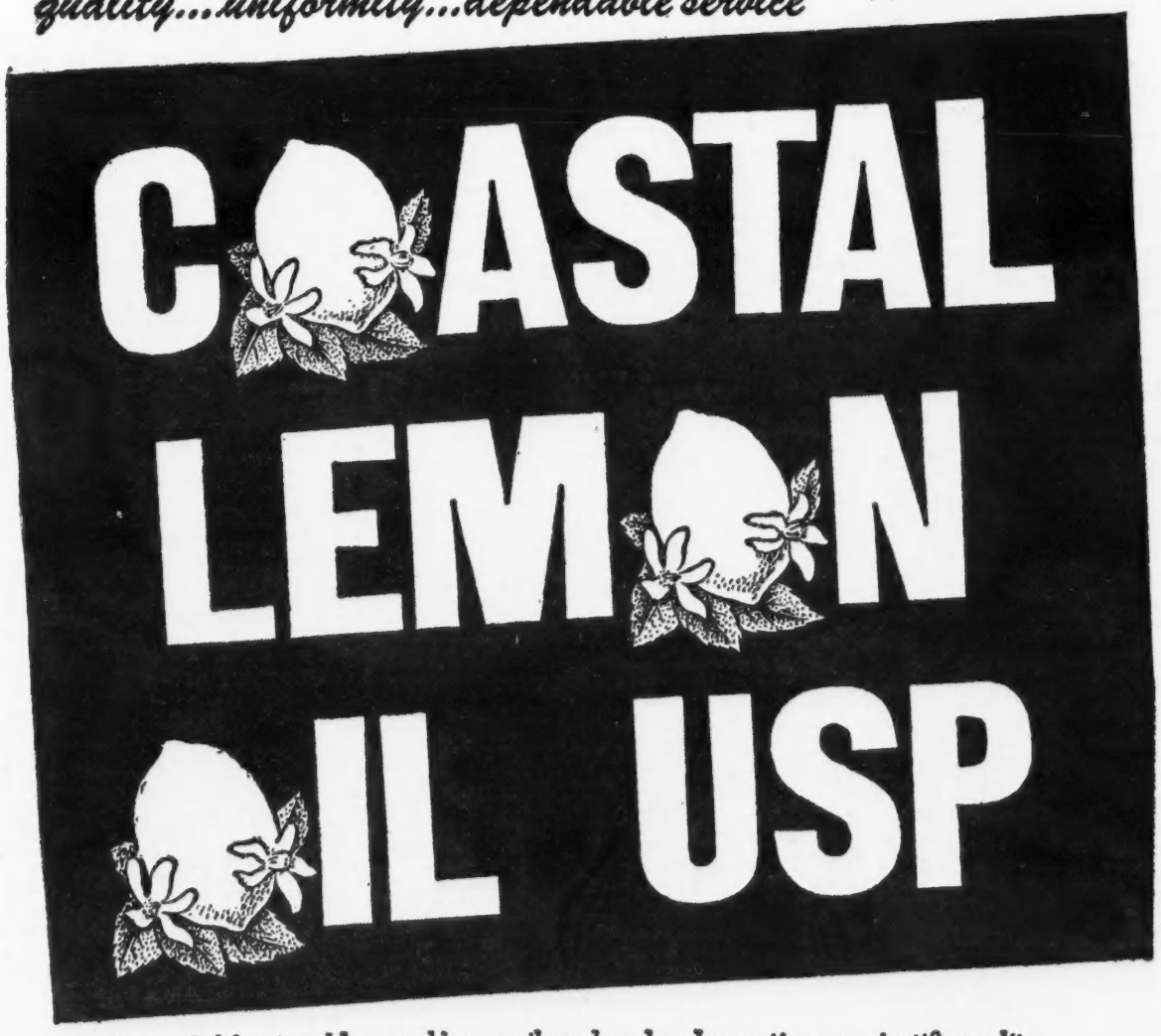
**GENERAL CHEMICAL DIVISION**
40 Rector Street, New York 6, N.Y.

Karaya gum, No. 1, NF, powd., bls lb. .48 - .50
No. 2, powd., bbls. lb. .43 - .45
No. 3, powd., bbls. lb. .37 - .40
Koch acid, bbls., frt. alld., 100% basis lb. 1.00 - —
Kola nuts, bgs. lb. .11 - .13

## L

L acid, bbls., works lb. 1.25 - —
Lacquer diluent, petroleum, 140°F. 200°F. b.r., tankcars, New Jersey and New York gal. .20 - —
Group 3 gal. .15125-
Houston, Texas gal. .16 - —
200°F-240°F b.r., tankcars, New Jersey or New York gal. .20 - —
Group 3 gal. .14125-
Houston, Texas gal. .16 - —
Lactic acid, food processing, 50%, dms., c.l., t.l., divd. N.Y., Phila lb. .1986- —
dms. 20 or more, same basis. lb. .2036- —
dms., 5 to 19, same basis lb. .2086- —
dms., 1 to 4, same basis lb. .2136- —
80%, c.l., dms., same basis lb. .3336- —
dms., 20 or more, same basis. lb. .3386- —
dms., 5 to 19, same basis lb. .3436- —
dms., 1 to 4, same basis lb. .3486- —
Plastic grade, 50%, c.l., bbls., works lb. .2740- —
bbls., 20 or more, works lb. .2790- —
bbls. 5 to 19, works lb. .2840- —
bbls., 1 to 4, works lb. .2890- —
80%, bbls., c.l., works lb. .4625- —
bbls. 5 to 19, works lb. .4725- —
bbls. 1 to 4, works lb. .4775- —
Tech., 44%, bbls., c.l., works. 100 lbs. 12.45 - —
bbls., t.c.l., works 100 lbs. 12.85 - —
USP, 85%, cbys. lb. .85 - —
Lactose, crystalline, edible, bgs., 23,000-lb. lots, frt. equald lb. .14 - —
bgs., 6,000-lb. lots, frt. equald lb. .14½- —
bgs., 2,000-lb. lots, frt. equald lb. .14¾- —
bgs., 200-lb. lots, frt. equald lb. .15¼- —
Edible lactose in fib. dms., ½c. higher.
ferment. grade, bgs., c.l., works. lb. .08¾- —
USP, reg., fib. dms., 30,000-lb. lots, frt. equald lb. .21½- —
fib. dms., 2,000-lb. lots, frt. equald lb. .22¼- —
200-1,880-lb. lots, frt. equald lb. .22¾- —
USP lactose in bags ½c. to 1c. lower.
USP, spray dried, bgs., t.l., frt. equald lb. .18½- —
bgs., t.t.l., frt. equald lb. .19 - .19¾
Lady's slipper root, bls lb. 3.00 - 3.50
Lamp black, bgs., c.l., works lb. .16 - .45
Lanolin, USP, anhyd., 400-lb. dms., works lb. .24 - .26
USP, annyd., cosmetic, 400-lb. dms., works lb. .26 - .30
USP, hydrous, 400-lb. dms., works. lb. .20 - —
Lard, cash, dms., Chicago lb. .08925- —
Lard oil (see Grease oil).
Larkspur seed, bgs. lb. .55 - —
Laurel leaf oil, dms., cns. lb. 9.75 - 12.50
Laurent's acid, bbls lb. .87 - —
Lauric acid, pure, dms lb. .30¼- .32¾
bags lb. .28¾- .31¼
tanks lb. .27¾- —
Lauryl alcohol, bots lb. 2.00 - 2.50
n-Lauryl methacrylate, dms., c.l., t.l., works lb. .65½- —
dms., l.t.l., works lb. .66 - —
Lavandin oil, 22-24%, dms. lb. 1.15 - —
Abrial, dms. lb. 1.20 - —
Lavender flowers, medium, bls lb. .55 - .60
Ord., bls. lb. .20 - .25
Select., bls. lb. .90 - 1.00
Lavender flower oil, USP, French, 35-37% ester, cns. lb. 1.85 - 4.00
40-42% ester, cns. lb. 3.50 - 3.65
Spike, Spanish, cns lb. 1.75 - 2.00
Lead acetate, NF, cryst., gran., powd., bbls. lb. .34½- —
White, cryst., bbls. lb. .25½- —
gran., bbls. lb. .26½- —
powd., bbls. lb. .26½- —
Lead arsenate, acid powder, dealers, 3-50-lb. bgs. or any quantity, frt. alld. on $150 or more lb. .30½- —
1-lb bgs., same basis lb. .47 - —
Lead, blue, basic sulfate, bbls., c.l., shipt. point, frt. alld lb. .17 - —
bbls., l.c.l., same basis lb. .18 - —
Lead carbonate (see Lead, white, basic carbonate).
Lead chloride, 400-lb. fib. dms. lb. .56 - —
Lead iodide NF V jars lb. 3.82 - —
Lead linoleate, fused, 26.5% Pb, dms. lb. .38 - —
Lead metal, prime, pigs, New York. lb. .11 - —
St. Louis lb. .1080- —
Lead monosilicate, bgs., c.l., works, frt. equald lb. .1335- —
bgs., l.c.l., same basis lb. .1485- —
Lead naphthenate, liq., 16% Pb., dms., divd lb. .19½- —
24% Pb., dms., divd. lb. .24¼- —
Solid, 37% Pb., dms., divd. lb. .31¾- —
Lead nitrate, tech., cryst., 400-lb. fib. dms lb. .2675- —
Lead orthosilicate gel., 50-60% PbO, dms., works lb. .29¾- .34¼
Lead peroxide, tech. powd., bbls lb. .45 - .50
Lead phthalate, dibasic, dms., works. lb. .41 - —
Lead, red, 95% $Pb_3O_4$ or less, bbls., c.l., works, frt. equald. lb. .1375- —
bbls., l.c.l., same basis lb. .1475- —
95% $Pb_3O_4$ or less, bbls., same basis lb. .1395- —
bbls., l.c.l., same basis lb. .1495- —
98% $Pb_3O_4$, bbls., c.l., same basis lb. .1410- —
bbls., l.c.l., same basis lb. .1510- —
Lead, resinate, precip., 23%Pb, dms., lb. .49 - —
Lead salicylate, normal dms., works lb. .46 - —
Lead silicate (see Lead white basic silicate).
Lead silicochromate, bgs., c.l., f.o.b. mfrs. point, frt. alld lb. .20 - —
bgs., l.c.l., same basis lb. .21 - —
Lead sulfate (see Lead blue basic sulfate).
Lead tallate, liq., 16% Pb, dms lb. .17¼- —
24% Pb, dms lb. .21¼- —
Solid, 30% Pb, dms lb. .26¾- —
Lead, white, basic carbonate, bgs., c.l., shipt. pt., frt. alld lb. .18 - —
bgs., l.c.l., same basis lb. .19 - —
Basic silicate, bgs., c.l., shipt. pt., frt. alld lb. .16½- —
bgs., l.c.l., same basis lb. .17½- —
Lecithin, edible, tech., bleached, non-ret. dms., c.l., works. lb. .14 - .15
non-ret. dms., l.c.l., same basis lb. .15 - .16
unbleached, non-ret. dms., c.l., same basis lb. .13 - .14
non-ret. dms., l.c.l., same basis lb. .14 - .15
Lemon bioflavonoid complex, 50 kilos, f.o.b. works kilo 14.20 - —
Lemon oil, USP, Calif., cns., dms. lb. 2.45 - 3.75
Messina, cns. lb. 4.00 - 6.50
Lemongrass oil, cns., dms lb. 2.60 - 2.80
dl-Leucine, dms., 1 kilo, works kilo 50.00 - —
Licorice root, gran., bls. lb. .13 - —
Powd., bls. lb. .15 - .16
Whole, bls. lb. .09 - .10
Lignaloe wood oil, Mexican, cns lb. 2.75 - 3.50
Lignosulfonate (see under Ammonium or Sodium lignin sulfonate)
Lilac oil lb. 1,500.00
Lime, chemical (quicklime), bulk, c.l., 50,000 lbs. works, E. ton 14.25 - —
Chemical, hydrated, bgs., c.l., same basis ton 17.25 - —
spray, bgs., c.l., same basis ton 18.25 - —
For New York delivery, add $6.29 freight charge
Lime oil, dist., Mexican, dms. lb. 5.50 - 6.00
West Indian, dms lb. 5.50 - 6.00
Expressed, West Indian, dms lb. 6.50 - 7.75
Lime salts (see Calcium)
Lime-ammonium nitrogen, 20.5% N (see Ammonium nitrate with dolomite).
Linalool, ex bois de rose oil, dms. lb. 2.45 - 4.25
Syn., 98-100%, dms., works lb. 3.20 - —
Linalyl acetate, ex bois de rose, 90-92%, dms lb. 2.65 - 4.50
96-98%, dms. lb. 3.25 - —
Syn., 98-100%, dms., works lb. 3.20 - —
Lindane, 25% formulation, to distributors, dms., frt. alld. lb. 1.35 - 1.50
99%, tech. to formulators, 250-lb. dms., 5,000 lbs., divd lb. 2.13 - —
100-lb. dms., 5,000-lbs., divd lb. 3.15 - —
250-lb. dms., less than 5,000-lbs., divd lb. 2.18 - —
100-lb. dms., less than 5,000-lbs., divd lb. 2.20 - —
Linden flowers, with leaves, bls lb. .35 - .40
Without leaves, bls. lb. .42 - .45
Linseed meal, expeller, 32%, bulk, Minneapolis, mills ton 60.50 - —
Extracted, 34%, bulk, same basis. ton 54.00 - —
Linseed oil, raw, dms., c.l., New York lb. .1810- —
dms., l.c.l., New York lb. .2010- —
tanks, f.o.b. Minneapolis lb. .1450- —
tanks, New York lb. .1558- —
tankwagon, New York lb. .1583- —
Boiled linseed oil, .006c. per lb. higher.
Linseed oil acid, water white, dms lb. .2973- .31
Litharge, comi., powd. bbls., c.l., works, frt. equald lb. .1325- —
bbls., l.c.l., same basis lb. .1425- —
Lithium aluminum hydride, lump, dms., works lb. 33.00 - 39.00
Lithium benzoate, dms. lb. 1.65 - 1.67
Lithium bromide, NF, gran., ngs., works, frt. equald lb. 2.60 - —
Lithium carbonate, NF, dms., ton lots lb. .58 - —
dms., 1,999 lbs. or less lb. .64 - —
Tech., dms., ton lots lb. .57 - —
dms., 1,999 lbs. or less lb. .63 - —
Lithium chloride, CP, anhyd., dms., ton lots lb. 1.23½- —
Tech. anhyd., dms., c.l., t.l., divd. or works, frt. alld lb. .87 - —
dms. l.c.l., same basis lb. .88 - .92
Lithium citrate, NF, dms., ton lots. lb. 1.50 - —
Lithium fluoride, dms., 20,000-lb. lots, divd lb. 1.75 - —
bbls., ton lots and more, divd lb. 1.85 - —
bbls., less ton lots, divd lb. 1.90 - —
Lithium hydride, powd., dms., 500-lbs lots or more, works. lb. 9.50 - —
Lithium hydroxide, monohydrate, dms., c.l., t.l., frt. alld lb. .59 - —
dms., l.c.l., frt. alld lb. .63 - —
Lithium manganite, dms. works lb. .95 1.05
Lithium nitrate, tech., dms., 100-lb lots lb 1.15 1.25
Lithium salicylate, dms. lb. 1.60 1.70
Lithium silicate, dms., works lb 1.10 1.30
Lithium stearate, dms. c.l., works. lb. 47½- —
dms. ton lots works lb. 48½- —
dms., less-ton lots, works lb. 53½- —
Lithium sulfate, dms. 100-lb. lots. lb 1.15 1.25
Lithium titanate, dms., works lb 1.15 1.25
Lithol red toner, barium, bbls., works lb. 1.03 - —
Lithol-rubine red toner, pure, bbls., works lb 1.63 - —
Resinated, bbls., works lb. 1.47 - —
Lithopone ord. bgs., c.l., divd E. lb. .08¾- —
bgs., t.c.l., divd. E lb. .09½- —
Titanated (high-strength), bgs., c.l., divd lb. .11 - —
bgs., t.c.l. divd lb. .12 - —
Lobelia herb, bls lb. .80 - —
Lobeline sulfate, bots., 50-oz. lots, works oz. 30.00 - —


*quality...uniformity...dependable service*

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**International Flavors & Fragrances, Incorporated**
**417 Rosehill Place, Elizabeth 2, New Jersey**

**Ventura Processors, 2325 Vista Del Mar Drive, Ventura, California**

Locust bean gum, powd., bgs. ....lb. .35 - .40
Lycododium, cs. ....lb. 2.50 - 3.00
1-Lysine monohydrochloride, 25-lb. dms lb. 4.95 - —

# M

Mace, Siauw, No. 1, bls. ....lb. 1.30 - 1.35
No. 2, whole, bls. ....lb. 1.20 - 1.25
siftings, bls. ....lb. 1.15 - —
Mace oil, dist., cns., dms ....lb. 9.00 -11.00
Magnesia, calcined, tech., bgs., ctns., frt equald lb. .25¾- .26½
Tech., syn., rubber grade, light, bgs., c.l., frt. equald lb .28¾- .30
rubber grade, extra light, bgs., c.l., frt. equald lb. .28 - —
bgs. l.c.l., frt equald lb. .28¾- —
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points
Magnesia, calcined, tech., heavy, 85% bgs. c.l., f.o.b Lunning, Nev ton.39.50 - —
91%, bgs., c.l., same basis, ton.49.50 - —
95%, bgs., c.l. same basis ton 59.00 - —
USP, light, bgs. ....lb. .36½- .37½
USP, heavy, bgs. ....lb. .36½- .37½
Magnesite, chemical grade, calcined, powd., bgs., c.l., works, frt equald ton.86.25 - —
Deadburnt, standard grain, bulk, c.l., Chawelah, Wash. ton.46.00 - —
Magnesium bromide, 80-lb. dm., f.o.b. works lb. 1.15 - —
Magnesium carbonate, tech., bgs., c.l., frt. equald lb. .11 - —
bgs., t.l., frt. equald lb. .11½- —
bgs., l.c.l. frt equald lb. .13½- .14
Magnesium carbonate, USP, bgs., c.l., frt. equald lb. .13½- —
bgs., t.l., frt equald lb .14 —
bgs., l.c.l. frt equald— lb .15 16
Above prices are quoted f.o.b. works, freight equald., with Metropolitan New York and competitive producing points.
Magnesium chloride, anhyd., 92%, flake or pebble, drums., c.l. works lb. .12¾- —
dms. l.c.l., works lb. .14 .15
hydrous, 99%, flake, bgs., c.l., works ton.60.00 —
bgs., l.c.l., works ton.75.00 -100.00
Magnesium gluconate 100-lb. dm., f.o.b. works E lb. 1.42 - —
Magnesium hydroxide, NF, powd., dms., 500-lbs. or more, f.o.b. works lb. .24½- 25½
Magnesium lauryl sulfate, dms., c.l., frt. alld lb. .22½- —
dms., l.t.l., frt alld. lb. .23½- —
tanks, frt alld. lb. .21½- —
Magnesium metal, 99.8%, ingots, 10,000-lb. lots or more, works lb .30 - —
pigs., 10,000-lb. lots or more, works lb. .35¼- —
sticks, cs., works, same basis.lb. .59 - —
Magnesium nitrate, cryst., dms., works lb. .29 - —
Magnesium oxide (see Magnesia, calcined).
Magnesium phosphate, tribasic, NF, bbls lb. .75 - —
Magnesium silicate (see Talc).
Magnesium silicofluoride, dms., works lb .10½- .12
Magnesium sulfate, tech., bgs., c.l., works 100 lbs. 2.15 - —
bgs, l.c.l., works 100 lbs. 2.90 - 3.15
USP, cryst., bgs., c.l., works, 100 lbs. 2.35 - —
bgs. l.c.l., 5,000 lbs., 1 withdrawal 100 lbs. 3.10 - —
bgs., smaller lots 100 lbs. 3.35 - —
Magnesium trisilicate, USP, 6lb. dms., 5,000-lb. lots lb. .38 - —
6lb. dms., 1,000-lb. lots lb. .40 - —
6lb. dms., 100-lb. lots lb. .45 - —
Bulky and super grades of magnesium trisicilate 7c. per lb. higher.
Malachite green, straight, PTA, bbls., works lb. 5.30 - —
Malathion, dms., c.l., works lb. .89 - —
dms., l.c.l., works lb. .92 1.01
Maleic acid, cryst., powd., dms lb. .37¼- —
Maleic anhydride, dms., c.l., frt. equald lb. .24 —
dms., l.c.l., frt. equald lb. .25½- —
tanks, frt equald lb .22½ —
Maleic anhydride in bags ½c. per lb. less.
Malic acid, tech., dms lb. .50 —
Mandelic acid, NF, dms., 1,000-lb. lots lb 2.35 —
dms., smaller lots lb. 2.40 2.50
Mandrake root, bls ....lb. .42 - .48
Manganese acetate, dms., dlvd lb. .35 - —
Manganese borate, tech., 6lb. dms. lb. .23½- —
Manganese carbonate, chemical grade, 46% Mn, bgs., 20,000-lb lots and more, works lb. .11 - .16
Manganese chloride, CP, anhyd., dms., 20,000-lb lots, works lb. .21¾- —
smaller lots, works lb. .23½- —
Manganese dioxide, African, 83-87%, 40,000 to 99,999-lb lots, burlap paper lined bgs., gross for net works ton.148.00 - —
40,000 to 99,999-lb lots, paper bgs., same basis ton.144.50 - —
40,000 to 99,999-lb. lots, dms same basis ton.152.50 - —
Prices for manganese dioxide in 10,000 to 40,000-lb. lots, $3 per ton higher.
Manganese gluconate, dms lb. 1.84 - —
Manganese hydrate, dms., dlvd lb .35 - —
Manganese hypophosphite, NF, dms. lb. 3.52 - —
Manganese linoleate, liq. 4.35% Mn, dms lb. .35¾- —
Solid, precip., 8.2% Mn, bbls lb. .41¼ —
Manganese metal, electrolytic, dms., c.l., dlvd, E lb. .34½- —
dms., ton lots, dlvd E lb. .37 - —
dms., smaller lots, dlvd E lb. .39 - —
Manganese naphthenate, liq., 6% Mn, dms., frt alld lb. .29¾- —
Manganese resinate, fused, 3½% Mn, dms lb .29¼- —
Precip., 6½-7% Mn, dms. lb. .42 - —
Manganese sulfate, fertilizer grade, 65% $MnSO_4$, bgs., c.l., dlvd, S, E ton.86.50 - —
bgs. l.c.l., dlvd S., E ton 93.50 - —
75%, $MnSo_4$, 30-tons, same basis 85.00- —
Manganese tallate 6%, dms lb. .26½ —
Manila copal gum, C, bgs.....lb. .35 - .39
DBB, bgs. ....lb. .24½- .28
DK, dust, bgs. ....lb. .14 Nom.
MA, soft, bgs. ....lb. .20 .24
WS, bgs. ....lb. No stocks.
Mannitol, com'l. fib dms., ton lots, works lb. .60 - —
fib. dms., to ton lots, works lb. .62 - —
fib. dms., single dm., works lb. .65 - —
Marine pitch, dms. ....lb. .04¼- .05
MBTS (see Mercaptobenzothiazyl disulfide).
MBT (see 2-Mercaptobenzothiazole).
Melamine, bgs., c.l., works....lb. .26½- —
bgs., l.c.l., works ....lb. .28 - —
Menadione, USP bots. ....gram. .044 - 05
Menhaden oil, crude, tanks, works, Alt. & Gulf ports lb. .05¾- .06¼
Menthol, nat., USP, Brazilian, large crystals, cs lb. 7.40 - 7.60
Nat., USP, Brazilian, regular crystals, cs lb. 7.30 - 7.50
Japanese, cs. ....lb.10.25 -10.50
Syn., USP, racemic, 25-lb. lots lb. 4.25 - —
2-Mercaptobenzothiazole, bgs., fib. dms., ton lots, works, frt. alld lb. .44 - —
bgs. fib. dms., less ton lots, same basis lb. .46 - —
Mercaptobenzothiazyl disulfide, bgs., fib dms., ton lots, works, frt. alld lb. .54 - —
bgs. fib dms. less ton lots, same basis lb. .56 - —
Mercuric chloride, NF, cryst., dms., 100 lbs., t.o.b works lb 4.03 - —
USP, gran. or powd., 50-lb. dm., 100 lbs., t.o.b works lb. 3.78 - —
Mercuric cyanide, NF VIII powd., fib dms lb 5.84 - —
Mercuric iodide, red, NF, 100-lb. dm., f.o.b. works lb. 6.97 - —
Mercuric oxide, red, NF IX 50-lb. dm., 100 lbs. f.o.b works. lb. 6.72 - —
tech., 50-lb dm. 100 lbs., same basis lb. 6.52 - —
yellow, NF, 50-lb. dm., 100 lbs., same basis lb. 6.89 - —
tech., dms., 100 lbs. ....lb. 4.35 - —
25-lb. fib. dm. ....lb. 4.38 - —
Mercurous chloride (see Calomel)
Mercury, ammoniated (see White precipitate USP XV)
Mercury metal, 76 lbs. per flask, net-flask 188.00 - —
Mesityl oxide dms., c.l., dlvd lb .15 —
dms., l.c.l., dlvd. ....lb. .16½- —
tanks, dlvd lb 12½- —
Meta-aminophenol (see m-Aminophenol).
Metachloroaniline (see m-Chloroaniline)
Metanilic acid, dms., works ....lb. .57 - .75
Metanitroparatoluidine (see m-Nitro-toluidine)
Metanitroaniline (see m-Nitroaniline)
Metaphenylenediamine (see m-Phenylenediamine)
Metatoluidine (see m-Toluidine)
Metatolylenediamine (see 2,4-Tolylenediamine).
Methacrylic acid, glacial 98%, dms. truckloads frt equald lb. .42½- —
dms, smaller lots, frt equald. lb. .43 - .75
tanks works, frt equald lb. .40 - —
Methanol, nat, denaturing grade, tanks, frt alld gal. .85 - —
Syn., zone 1, dms., c.l., or t.l. min. dlvd gal. .51½- —
dms. l.c.l. dlvd gal. .61½- —
Syn., tankwagon, 2,000-4,000 gal. lots, dlvd. Metropolitan area gal. .35 - —
tankwagon, 4,000 gal min., dlvd gal. .30 - —
tankwagon, 4,000 gal. min., f.o.b terminal gal. .29 - —
Syn., zone 2, dms., c.l., t.l., min., frt. alld. or dlvd. gal. .55½- —
dms. l.c.l., works gal. .65½- —
tankwagon, 2,000-4,000 gal. lots, min., dlvd. Metropolitan area gal. .39 - —
tanks, 4,000 gal. min., dlvd. gal. .34 - —
Synthetic methanol zones are: Zone 1 is all continental US E. of eastern boundaries of Ariz., Idaho and Utah. Zone 2 is remainder of US west of above state boundaries comprising Ariz., Calif., Idaho, Nev., Ore., Utah and Wash.
Methapyrilene fumarate, 100-999 lbs., dms., f.o.b. works, frt. equald lb.21.75 - —
Methapyrilene hydrochloride, 100-999 lbs., dms., f.o.b. works, frt equald lb.27.25 - —
Methenamine (see Hexamethylene-tetramine).
Methionine hydroxyanalogue, (calcium salt) 90% min., dms., t.l., frt alld. lb 1.10 - —
dms., l.t.l., same basis lb 1.16 - —
dl-Methionine, fib dms., frt. alld., 50-lb or more lb 3.50 - —
Feed grade, 98% fib dms. same basis lb. 1.43 - —
Methoxychlor 50% wettable powder, dealers, dms. cs lb. .66 - —
Methyl abietate, non-ret dms., c.l., dlvd zone 1 lb. .21½- —
non-ret dms., l.c.l., same basis lb. .22 - .22½
Methyl abietate, hydrogenated, non-ret. dms., c.l., dlvd zone 1 lb. .23½- —
non-ret. dms., l.c.l., same basis, lb. 24 24½
Zone 1 includes New England and Middle Atlantic states, Va., W. Va., N. C., Ohio, Ky., Mich., Ind., Ill., Wis., St. Paul and Minneapolis, Minn.; St. Louis, Mo.; Miss., Ala., Ga., Fla., S. C. and Tenn
Methyl acetone, nat., dms., l.c.l., E of Miss. frt alld gal. .62½- —
Syn., dms., c.l., frt. alld. E gal. .60½- —
dms., l.c.l., frt. alld. E ....gal. 70½- —
tanks, frt. alld. E. ....gal. .44½- —
Synthetic methyl acetone E. territory comprises all states East of and including Colo., Mont., N. Mex. and Wyo. West territory is made up of all states west of those four.
Methyl acrylate, dms., c.l., t.l., dlvd. lb. .35¼- —
dms., l.t.l., dlvd ....lb. .36¼- —
tanks, dlvd. ....lb. .32¼- —
Methyl alcohol (see Methanol).
Methyl amyl acetate, dms., c.l., dlvd. E lb. .17 - —
dms., l.c.l., dlvd. E. ....lb. .18½- —
tanks, dlvd. E. ....lb. .14½- —
Methyl amyl alcohol, dms., c.l., dlvd. lb. .17 - —
dms., l.c.l., dlvd. ....lb. .18½- —
tanks, dlvd ....lb. .14½- —
Methyl amyl ketone, dms., c.l., t.l., f.o.b. works lb. 1.99¼- —
dms., l.c.l., same basis lb. 2.00 - —
N-Methylaniline, tech., tanks, frt. alld lb. .60 - —
Methylanthranilate, cns. ....lb. 2.20 - 2.70
Methyl benzoate, cns. dms. ....lb. .60 - .75
Methyl bromide, service organization prices, 40 to 375-lb. cyls., large lots, frt. alld lb. .62 - .72
on 100 lbs lb. .73 - .79
Methyl cellulose, special vis., (1,500-4,000 cps.) 50-lb. bgs., c.l., works lb. .82 - —
50-lb. bgs., 2,000-lb. lots and more, same basis lb. .89 - —
50-lb. bgs., smaller lots, frt, alld on 100 lbs lb. 1.05 - —
Standard vis. (15,400 cps.) 50-lb. bgs., c.l., frt. alld. lb. .69 - —
50-lb. bgs., 2,000-lb. lots and more, same basis lb. .76 - —
50-lb. bgs., smaller lots, frt. alld.
Methyl chloride, indust., cyls., frt. equald lb. .22¼- —
tanks, multi-unit, same basis, lb. .16¼- —
tanks, single unit, same basis, lb. .12¾- —
Refrigerator mfgs., cyls., dlvd lb. .48¾- —
Other consumers or service men, cyls., dlvd lb. .67¾- —
Methyl chloroform (see 1,1,1-Trichloroethane).
Methyl cinnamate, cns ....lb. 1.55 - 1.80
Methyl ethyl ketone, dms., c.l., dlvd lb. .15 - —
dms., t.c.l., dlvd ....lb. .16½- —
tanks, dlvd. ....lb. .12½- —
2-Methyl-5-ethyl pyridine, dms., c.l., works lb. .45 - —
dms., t.c.l., works ....lb. .45¾- —
tanks, works ....lb. .43 - —
Methyl formate, refd., dms ....lb. .35 - .40
Tech., non-ret. dms., any quantity, works lb. .10 - —
tanks, works lb. .07 - —
a-D Methyl glucoside, tech., 100-lb. multiwall paper bgs., c.l., works lb. .26 - —
100-lb. multiwall paper bgs., t.l., min. 23,000 lbs., works. lb. .27 - —
100-lb. multiwall paper bgs., t.t.l., works lb. .28 - —
Methyl heptin carbonate, bots....lb.27.25 -29.00
Methyl p-hydroxybenzoate, fib. dms. lb. 1.90 2.00
Methyl ionone, standard, cns., dms. lb. 3.40 - 3.85
Methyl isoamyl ketone, dms., c.l., dlvd lb. .20 - —
dms., t.c.l., dlvd. ....lb. .20½- —
tanks, dlvd. ....lb. .17½- —
Methyl isobutyl carbinol (see Methyl amyl alcohol).
Methyl isobutyl ketone, dms., c.l., dlvd lb. .17 - —
dms., t.c.l., dlvd ....lb. .18½- —
tanks, dlvd ....lb. .14½- —
Methyl methacrylate, dms., c.l., t.l., frt. equald, with Belle, W. Va lb. .31 - —
dms., smaller lots, same basis lb. .31½- —
tanks, same basis lb. .29 - —
Methyl naphthyl ketone, cryst., cns lb. 2.45 - 4.30
Methyl parahydroxybenzoate (see p-Hydroxybenzoate)
Methyl parathion, tech., 80%, dms., frt. alld. E lb. .84 - —
Methyl parathion prices 2c. per lb. higher in West
Methyl roseaniline chloride, NF., 5-lb. fib. dms lb. 6.90 - —
Methyl salicylate, dms., t.l., frt. alld lb. .60¼- —
dms., t.c.l., same basis ....lb. .62½- .67½
Methyl testosterone, USP, 100-gram. bots gram. No Prices.
2-Methyl-5-vinyl pyridine, 40-dm. lots or more, f.o.b. works lb 1.32 - —
5-39 dm. lots, same basis ....lb. 1.37 - —
tanks, same basis ....lb. 1.27 - —
Methyl violet toner, molybdated, PMA, bbls., dlvd. E. of Rockies lb. 2.95 - —
Tungstated, PTMA, bbls., same basis lb. 4.35 - —
Methyl violet prices 1c. higher W. of Rockies.
Methylene blue, NF, crystals, 100-lbs., frt. equald lb. 4.10 - —
Methylene chloride, tech., straight or assorted, dms., c.l. or t.l., dlvd lb. .12½- —
dms., t.c.l., t.t.l. dlvd lb. .15¾- —
tanks, 4,000-gal. min., dlvd lb. .11¼- —
b-Methylnaphthalene, 32°C., m.p., dms., works lb .90 - —
Methylpentanediol (see Hexylene glycol).
Methylphenylpyrazolone (see 1-phenyl-3-methyl-pyrazolone-5).
Methylthionine chloride (see Methylene blue).
Mica, dry-grd., paint, plastic, 100 mesh, bgs., c.l., works lb. .04 - —
roofing, 20 to 80 mesh, works lb. .03 - —
wet-grd., biotite, bgs., c.l., works, frt. alld.E lb. .06½- —
bgs., t.c.l., ex-whse. lb. .07¼- —
paint or lacq., bgs., c.l., 325 mesh, works, frt. alld E. lb. .08¼- —
bgs. t.c.l. ex-whse or freight alld. E lb. .09 - —
wet-grd., rubber, bgs., c.l., works, frt. alld. E lb. .08 - —
bgs., t.c.l., ex-whse. or frt. alld. E lb. .08¾- —
wallpaper, bgs., c.l., works, frt., alld.E lb. .08¾- —
bgs., ex-whse or frt. alld E. lb. .09 - —
white, 5-10 microns, bgs., c.l., works, frt. alld. E lb. .08¼- —
Mica, wet-grd W. of Miss. ½c. higher; W. of Rockies 1c higher
Microcrystalline wax, petroleum, coating grades, tankcars, works lb. .10 - .11
laminating grades, tankcars, works lb. .11 - .12
Mineral black, bgs., works lb. .0160- .0673
Mineral oil, white tech., 50-65 vis., non ret. dms., c.l., f.o.b. refy gal. .70 - —
non-ret. dms., t.c.l., same basis gal. .75 - —
tankcars, refy. gal. .54 - —
65-75 vis., non-ret. dms., c.l., same basis gal. .70½- —
non-ret. dms., t.c.l., same basis gal. .75½- —
tankcars, refy. gal. .54½- —
NF, 80-90% vis., non-ret. dms., c.l., same basis gal. .71 - —
non-ret. dms., t.c.l., same basis gal. .76 - —
tankcars, refy. gal. .55 - —
135-138 vis., non-ret. dms., c.l., same basis gal. .77 - —
non-ret. dms., t.c.l., same basis gal. .82 - —
tankcars, refy. gal. .61 - —
145-155 vis., non-ret. dms., c.l., same basis gal. .83 - —
non-ret. dms., t.c.l., same basis gal. .88 - —
tankcars, refy. gal. .67 - —
USP, 180-190 vis., non-ret. dms., c.l., same basis gal. .85 - —
non-ret. dms., t.c.l., same basis, gal. .90 - —
tankcars, same basis gal. .69 - —
200-210 vis., non-ret. dms., c.l., f.o.b. refy gal. .875 - .90
non-ret. dms., t.c.l., same basis gal. .925 - —
tankcars, refy. gal. .69 - .715
Mineral oil, USP, 340-350 vis., non-ret, dms., c.l., f.o.b. refy gal. .92½- —
non-ret. dms., t.c.l. gal. .97½- —
tankcars, refy. gal. .76½- —
(For dlvd, N.Y. prices add 2c. for c.l. and 3c. for t.c.l.).
Mineral orange, American, bbls., c.l., works lb. .16 - —
bbls., t.c.l., same basis lb. .17 - —
Mineral spirits, petroleum, odorless, tankcars, New Jersey gal. .29 - —
New York gal. .305 - —
Houston, Texas gal. .25 - —
regular, tankcars, New Jersey and New York gal. .18 - —
Group 3 gal. .12875- —
Houston, Texas gal. .145 - —
140 F. flash, New York, New Jersey at terminal gal. .205 - —
Houston, Texas gal. .17 - —
Mink oil, dms. ....lb. 1.75 - —
Mirbane oil (see Nitrobenzene).
MNPT maroon toner, kgs., c.l., works lb. 6.30 - —
Molasses, blackstrap, feed grade, tanks, New Orleans gal. .14 - .14½
tanks, New York gal. .15½- .16
Molybdated orange, bbls. lb. .49 - —
Molybdenum metal, powd., 80 or 200 mesh, ctns., works kilo. 7.84 - —
325 mesh, ctns., works kilo 9.13 - —
Molybdenum trioxide, purif., dms., works lb. 1.25 - —
Tech., chemical, dms., works, basis Mo content lb. 1.61 - —
Tech., metallurgical, dms., works, basis Mo. content lb. 1.60 - —
Molybdic acid, 84%, dms., works. lb. 1.15 - 1.25
Monoallylamine, dms., c.l., dlvd lb. .365 - —
dms., c.l., dlvd. ....lb. .995 - —
tanks, dlvd ....lb. .96 - —
Monobutylamine, dms., c.l., dlvd. E. of Rockies lb. .57½- —
dms., t.c.l., same basis lb. .59 - —
tanks, same basis lb. .55 - —
Mono-tert-butyl-m-cresol, dms., c.l., works lb. .55 - —
dms., t.c.l., works ....lb. .56 - —
tanks, works ....lb. .54 - —
Monochloracetic acid, purif. (see Chloroacetic acid, mono).
Monochlorobenzene, dms., c.l., frt. alld. or dlvd. E lb. .10½- —
dms., t.c.l., same basis ....lb. .11½- —
tanks, same basis ....lb. .08¾- —
Monochlorobenzene prices in the West 1¾c. higher.
Monoethanolamine, dms., c.l., dlvd. E lb. .27½- —
dms., t.c.l., same basis ....lb. .29 - —
tanks, same basis ....lb. .25 - —
Monoisopropanolamine, dms., c.l., dlvd. E lb. .33½- —
dms., t.c.l., same basis ....lb. .35 - —
tanks, same basis ....lb. .31 - —
Monomethylamine, anhyd., cyls., l.c.l., frt. equald., 100% basis lb. .30 - —
tanks, 100% basis lb. .26 - —
30-35% soln., dms., c.l., frt. equald. 100% basis lb. .36 - —
30-35% soln., dms., l.c.l. frt. equald, 100% basis lb. .36½- —
tanks, frt equald., 100% basis, lb. .26 - —
40% soln. dms. frt. equald., 100% basis lb. .33 - —
dms., t.c.l., frt. equald., 100% basis lb. .33½- —
tanks, frt. equald, 100% basis lb. .26 - —
Monopentaerythritol, tech., bgs., c.l., dlvd lb. .29 - —
bgs., l.c.l. ....lb. .30 - —
Monopotassium glutamate, dms., 1,000-lb lots, frt alld lb 3.05 - —
dms. 100-lb lots, same basis lb 3.25 - —
Monosodium glutamate, dms., dlvd. lb. 1.07 - 1.15
Monosodium phosphate (see sodium phosphate, monobasic)
Montan wax, Calif., refd., bgs ....lb. .29 - .30
Imp., crude, Bohemian, bgs ....lb. .25 - .26
German, bgs. ....lb. .25 - .26
Morphine, cns., 100-oz., f.o.b. works. oz.12.35 - —
Morphine hydrobromide, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morphine hydrochloride, NF, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morphine sulfate, USP, cns., 100-oz., f.o.b. works oz. 9.90 - —
Morpholine, dms., c.l., dlvd. E lb. .55¼- —
dms., t.c.l., dlvd. E ....lb. .56¾- —
tanks, dlvd. E lb. .52¾- —
Muriatic acid (see Hydrochloric acid).
Musk, syn., ambrette, fib. dms., 100-lb. lots lb. 4.40 - 4.90
cns., 25-lb. lots lb. 4.50 - 5.00
Ketone fib. dms., 100-lb. lots lb. 4.60 - 5.10
cns., 25-lb. lots lb. 4.70 - 5.20
Xylol, fib. dms., 100-lb. lots lb. 1.26 - —
cns. 25-lb. lots lb. 1.40 - —
Mustard seed, Danish, yellow, bgs. lb. .09 - .09½
Montana, yellow, bgs ....lb. .10½- —
Oriental, bgs. ....lb. .09 - —
Mustard oil, syn., bots. ....lb. 1.60 - 1.85
Myristic acid, bgs ....lb. .23¼- .25¾
tanks ....lb. .22¼- —
Myrrh gum, cs. ....lb. .65 - .75

# N

Naphtha, high solvency (see Solvent naphtha, petroleum).
Naphtha, petroleum, cleaner's (see Cleaner's naphtha).
Naphtha, VM&P, petroleum, tankcars, New Jersey and New York gal. .19 - —
Group 3 gal. .13875- —
Houston, Texas gal. .155 - —
Naphthalene, crude, dom., 78°, tanks, f.o.b., frt. equald lb. .06¼- .06¾
Refd., indust., chipped, crushed, bgs., frt. equald lb. .14½- —
tanks, same basis lb. .11¾- —
Refd., indust., balls, flakes, wholesalers, jobbers, bbls., c.l., same basis lb. .15½- —
cs., 50 lbs., c.l., same basis, lb. .15¾- —
1-lb. pkgs., c.l., same basis. lb. .18½- —
a-Naphthol, dms., frt. alld ....lb. 1.02 - —
b-Naphthol, tech., flake bbls., c.l., works lb. .34 - —
bbls. l.c.l., works lb. .36 - —
Naphthol, ITR, red toner, bbls. works lb. 5.00 - —

1-Naphthol-3,6-disulfonic 8-amino acid (see H acid).
1-Naphthol-4 sulfonic acid (see Neville and Winther's acid).
1-Naphthol-5-sulfonic acid (see L acid).
1-Naphthol-5-sulfonic 8-amino acid (see S acid).
2-Naphthol-6,8-disulfonic acid (see Gamma acid).
Naphthol sulfonic mixed acid (see Cleve's acid).
a-Naphthylamine, dms., frt. alid lb. .52 • —
b-Naphthylamine, tech., flake, bbls., works lb. 1.60 • —
1-Naphthylamine-5-sulfonic acid (see Laurent's acid).
2-Naphthylamine-4,8-disulfonic acid (see Cassella acid).
2-Naphthylamine-1-sulfonic acid (see Tobias acid).
2-Naphthylamine-6-sulfonic acid (see Broenner's acid).
2-Naphthylamine-7-sulfonic acid (see F acid).
Naringin, fib dms. lb. 8.50 • —
Neatsfoot oil, 15° cold test, dms lb. .29 Nom.
20° cold test, dms. lb. .28 Nom.
30° cold test, dms. lb. .27 Nom.
Neocinchophen, USP dms., frt. adjusted lb. 7.00 8.00
Neomycin sulfate fib dms., 1-kilo basis activity gram. .18 • —
fib. dms. 100-999-gram lots, basis activity gram. .25 • —
Tech., fib. dms gram. .13½ • —
Neopentylglycol dms., c.l., dlvd lb. .32 • —
dms., l.c.l., same basis lb. .33 • —
Neroli, dms. lb. 4.75 • —
Neroli oil, NF, French, bots. lb. 425.00 575.00
Tunisian, bots. lb. 400.00 —
Nerolin, cns. lb. 2.45 2.85
Neville and Winther's acid, dms., frt. alid lb. 1.50 • —
Niacinamide (see Nicotinamide).
Nickel acetate, bbls., dlvd. lb. .72 • .79
Nickel carbonate, bbls., dlvd lb. .83 • .90
Nickel chloride, bbls., dlvd. lb. .39½ • .47½
Nickel formate, bbls., ton lots, frt. alid lb. .78 • .79
Nickel metal, electro cathodes, cs., works lb. .81¼ • —
Nickel nitrate, dms., frt. alid lb. .34½ • .36½
Nickel oxide, black, bbls. lb. .92 • —
Green, bbls. lb. .91 • —
Nickel sulfate, bgs., c.l., dlvd lb. .30 • —
bgs., l.c.l., dlvd. lb. .30½ • .38
Nicotinamide, USP, 50-kilo, dms., frt. equald kilo. 5.75 • —
dms., smaller lots, same basis, kilo. 5.85 • 6.05
Nicotinamide hydrochloride, 50-kilo dms., dlvd kilo. 6.50 • 7.50
Nicotine sulfate 40% dealers, 50-lb. dms frt. alid lb 1.20 • —
40% manufacturers, 500-lb. dms., frt. alid lb. 1.05 • —
Nicotinic amide, USP (see Nicotinamide)
Niger seed, bgs. lb. 10¼ • —
Nikethamide, cbys. lb. 5.00 • —
Nitric acid, 36° Be., cbys., c.l., works E 100 lbs. 5.75 • —
cbys., l.c.l., works E 100 lbs. 6.05 • 6.85
38° Be., cbys. c.l., works E. 100 lbs. 6.25 • —
cbys., l.c.l., works E 100 lbs 6.55 • 7.35
40° Be., cbys., c.l., works E 100 lbs. 6.75 • —
cbys., l.c.l., works E 100 lbs. 7.05 • 7.85
42° Be., cbys. c.l., works E. 100 lbs. 7.25 • —
cbys., l.c.l., works E 100 lbs. 7.55 • 8.35
58.5 to 68%, HNO$_3$, tanks, works, 100% basis 100 lbs. 3.90 • —
94½ to 95½% HNO$_3$, tanks, works, 100% basis 100 lbs. 4.90 • —
Nitric acid, CP, NF consumer, cbys., extra, c.l., works lb. .18½ • —
cbys. extra, l.c.l. works. lb. .20 • —
5-pint bots. extra, cs., c.l., same basis lb. .22½ • —
5-pint bots. extra, cs., l.c.l., same basis lb. .24 • .25
dms. frt alid lb. .99 • —
4-Nitro-2-aminophenol, tech., paste, dms., l.c.l., works lb. .64 • —
m-Nitroaniline, cryst., dms., frt. alid lb. 1.15 • —
Paste, dms., frt. alid., 100% basis 1.10 • —
o-Nitroaniline, flaked, dms. t.l., frt. alid lb. .49 • —
dms. t.l., frt alid lb. .51 • —
o-Nitroaniline orange toner, kgs. lb. 1.50 • —
p-Nitroaniline c.l., t.l., dms., 20,000 lb. min., dlvd lb. .44½ • —
dms., l.c.l., same basis lb. .46½ • —
o-Nitroanisole tech. tanks, frt. alid. lb. .36 • —
p-Nitroanisole, tech., solid, dms., frt alid lb. .72 • —
Nitrobenzene, dbl dist., dms., c.l., frt. alid lb. .13 • —
dms., l.c.l., frt. alid. lb. .14 • —
tanks, frt. alid lb. .12 • —
p-Nitrobenzoic acid, dms., c.l., works lb. .63 • —
Nitrocellulose, ester-soluble, 30-35 cps., ¼, ½, ¾, 5-6, 15-20, 30-40, 60-80, 125-175 seconds, bbls., c.l., works lb. .39½ • —
bbls., l.c.l., same basis lb. .42½ • —
18-25 cps., bbls., c.l., same basis. lb. .41½ • —
bbls., l.c.l., same basis lb. .44½ • —
250-400, 600-1,000 seconds, bbls., l.c.l., same basis lb. .44½ • .47½
Spirit soluble, 30-35 cps., ¼, ½ seconds, bbls., c.l., same basis lb. .44 • —
bbls., l.c.l., same basis lb. .47 • —
5-6 cps., 40-60 seconds, bbls., c.l., same basis lb. .43 • —
bbls., l.c.l., same basis lb. .46 • —
Denatured alcohol used in the manufacture of nitrocellulose is charged extra. Drums extra but returnable
o-Nitrochlorobenzene dms. c.l., frt. alid lb. .15 • —
dms., l.c.l., same basis lb. .16 • —
tanks, same basis lb. .13 • —
p-Nitrochlorobenzene dms. lb. .26 • .27
2-Nitro-p-cresol, tech., dms., t.l lb. .71 • —
dms., l.t.l. lb. .73 • —
Nitroethane, dms., c.l., dlvd. E lb. .28½ • —
dms., l.c.l., dlvd. E lb. .30 • —
tanks, dlvd E lb. .26 • —
Nitroethane prices West of Rockies are 1c. higher
Nitrogen solutions, direct application, tanks, f.o.b. works unit-ton. 1.64 • —
Manufacturing type, same basis, unit-ton. 1.32 • —
Nitrogen tetroxide, indust., tankcars, f.o.b Hopewell, Va lb. .065 • —
Cyls., t.l., min 5 tons, same basis lb. .07½ • —
Cyls., l.c.l., t.l.l. same basis lb. .15 • —
Nitrogenous process tankage, bulk, works unit-ton 4.50 5.00
Nitrogenous sewage sludge, bulk, f.o.b Chicago, works unit-ton 3.50 —
(The foregoing price is per unit $NH_3$, plus 50c. per unit a.p.a., bulk, f.o.b. producers' works, Chicago.)

Nitromethane, dms., t.l., dlvd. E lb. .26 • —
dms., l.t.l., dlvd. E lb. .27½ • —
Nitromethane prices West of Rockies are 1c higher.
a-Nitronaphthalene, bbls., frt. alid. lb. .31 • —
o-Nitrophenol, dms., works, frt. equald lb. .94 • —
p-Nitrophenol, dms., c.l., frt. alid. lb. .45 • —
dms., l.c.l., frt. alid lb. .47 • —
1-Nitropropane, dms., c.l., frt. alid. E. of Rockies lb. .28½ • —
dms., l.c.l., same basis lb. .30 • —
tanks, same basis lb. .26 • —
1-Nitropropane prices West of Rockies are 1c. per lb. higher.
2-Nitropropane, dms., c.l., frt. alid. E of Rockies lb. .18½ • —
dms., l.c.l., same basis lb. .20 • —
tanks, same basis lb. .16 • —
m-Nitrotoluene, tech., dms, frt. alid. lb. .50 • —
o-Nitrotoluene, dms., c.l., frt. alid lb. .15 • —
dms., l.c.l., frt alid. lb. .16 • —
tanks, frt. alid. lb. .13 • —
p-Nitrotoluene, tech., cast, dms., c.l., works lb. .27½ • —
dms., l.c.l., works lb. .28 • —
flake, dms., c.l., t.l., works lb. .27½ • —
dms., l.c.l., works lb. .28 • —
m-Nitro-p-toluidine, dms. lb. 1.25 • —
Nonylphenol, dms. c.l, frt. alid. lb. .22½ • —
dms., l.c.l., frt. alid lb. .23½ • —
tanks, frt. alid lb. .20 • —
Nonylphenol prices on shipments to Western States are 2c. higher.
Noscapine, cns. oz. 8.00 • —
Nutmegs, East Indian, whole, bgs. lb. 1.20 • —
West Indian, bgs. lb. .98 • .99
Nutmeg oil, USP dist., East Indian, cns lb. 8.00 -12.00
West Indian, cns. lb 9.00 -12.00
Nux vomica, bls. lb. .20 —
Powd., bbls., bxs. lb. .20 .22

## O

Ocher (see Iron oxide yellow, nat.).
Ocotea cymbarum oil, dms lb. .44 • .47
Octane, indust., tanks, Bayonne, N.J gal. .20 • —
1-Octanol, tech., dms. c.l., dlvd., Zone 1 lb. .41½ • —
dms., l.c.l., dlvd. Zone 1 lb. .43½ • .44½
tanks, dlvd. Zone 1 lb. .37½ • —
Octyl alcohol, perfumers grade, bots. lb. 1.60 3.25
Octyl alcohol, tech. (see 1-Octanol, tech).
n-Octyl-decyl alcohol blend, tanks, dlvd lb. .19 • —
tert-Octylamine, dms., c.l., t.l., f.o.b. works lb. .54½ • —
dms., l.c.l., same basis lb. .55 • —
Octylphenol, bgs., c.l., works lb. .22½ • —
bgs., l.c.l., works lb. .23 • —
tanks, works lb .21½ • —
Octylphenol in dms., 11c. higher.

**OILS**
**Oil quotations are listed individually. For example, prices on Oil, coconut, may be found in the C's under Coconut oil.**

Oiticica oil, liquid, dms. lb. .16 • .16¼
tanks lb. .14¼ • .14½
Oleic acid, dbl.-dist. (white), dms. lb. .18½ • .21
tanks lb. .16 • —
S. D., dms. lb. .17½ • .20
tanks lb. .15 • —
Oleum (see Sulfuric acid, fuming).
Olibanum gum, siftings, cs lb. .15 • .20
Tears, cs. lb 22 • .30
Olibanum oil, bots lb 5.00 7.65
Extra fine, bots lb 8.00 9.50
Olive oil, edible, dms., spot, ex whse. gal. 2.35 • 2.40
Olivine, crude, works ton 12.00 —
20 mesh, works ton 15.00 • —
100 mesh works ton 20.00 • —
Opium, USP, cns., 25-lbs., f.o.b. works oz. 19.20 • —
gran., cns., 50 lbs. same basis oz. 21.65 • —
powd., cns., 50 lbs. same basis oz. 21.65 • —
Orange oil, expressed, USP, Calif., cns., dms lb. .70 • .90
Calif., sweet., cns., dms lb. .60 • —
Florida, cns., dms lb. .40 • .45
Messina, cns. lb. 3.25 5.00
West Indian, bitter, cns., dms. lb. 2.50 • 3.50
Orange peel, bitter, Haitian, bis lb. .18 .20
Sweet lb. .28 .30

**ORANGE PIGMENTS**
**Orange pigment quotations are listed individually. For example, prices on Orange, chrome, may be found in the C's under Chrome orange.**

Origanum oil, Spanish, cns lb. 1.80 2.30
Orris root, Florentine, bls lb. .55 • —
powd., bbls., bxs lb. .65 • —
Verona, bls lb. .35 • —
powd., bbls., bxs lb. .45 • —
Orthoanisidine (see o-Anisidine).
Orthochlorobenzaldehyde (see o-Chlorobenzaldehyde).
Orthochloroaniline (see o-Chloroaniline).
Orthochlorobenzoic acid (see o-Chlorobenzoic acid).
Orthochloroparanitroaniline (see 2-Chloro-4-nitroaniline).
Orthochlorophenol (see o-Chlorophenol).
Orthocresol (see o-Cresol)
Orthocresotinic acid (see 2,3-Creosotic acid).
Orthodichlorobenzene (see o-Dichlorobenzene).
Orthonitroaniline (see o-Nitroaniline).
Orthonitrochlorobenzene (see o-Nitrochlorobenzene).
Orthonitroparachlorophenol (see 2-Nitro-4-Chlorophenol).
Orthonitrophenol (see o-Nitrophenol).
Orthonitrotoluene (see o-Nitrotoluene).
Orthophenetidine (see o-Phenetidine)
Orthophenylphenol (see o-Phenyl phenol).
Ortho-tertiary amylphenol (see o-tert-Amylphenol)
Orthotolidine (see o-Tolidine base)
Orthotoluidine (see o-Toluidine).
Ouabain, USP, bots. gram 3.00 4.00
Ouricury, wax, crude, bgs lb. .50 • .52
Refd., pure, bgs lb. .54 • .56
Oxalic acid, bgs., c.l., works lb. .18 • —
bgs., 10,000-lb. lots, works lb. .19 • —
bgs., smaller lots, works lb. .20½ • —
Oxalic acid in drums is priced ½c. per lb. higher.
b-Oxynaphthoic acid, pigment manufacture, dms., frt alid lb. .912 • —
Dyestuff manufacture, dms., same basis lb 1.03 1.14
Oxyquinolin sulfate, cns., 100-lb lots, works lb 4.75 5.00
cns., smaller lots, works lb 4.92 5.17

## P

Palm oil, clarif., dms lb. .14¾ • .15¾
tanks, New York lb. .12 • —
Palm oil acid, double dist. dms. lb. .16½ • .19
tanks lb. .14 • —
single dist., dms. lb. .16 • .18½
tanks lb. .13½ • —
Palmarosa oil, cns. lb. 5.25 • 6.50
Papain, powd., bots. lb. 3.25 • 10.00
Papaverine hydrochloride, nat. or syn., USP, cns., 25-oz. to 100-oz. lots oz. 5.00 • —
cns., smaller lots oz. 5.05 • 5.20
Papaverine sulfate, nat. or syn., USP, cns oz. 7.10 • 7.35
Paprika, Bulgarian, bgs lb. .32 • —
Hungarian, bgs. lb. .33 • —
Spanish, bgs. lb. .33 • .38
Para-aminobenzoic acid (see p-Aminobenzoic acid)
Parachlorobenzoic acid (see p-Chlorobenzoic acid)
Paramethylphenylcinchonic acid (see Neocinchophen).
Paranitrobenzoic acid (see p-Nitrobenzoic acid).
Paratoluidinemetasulfonic acid (see p-Toluidine-m-sulfonic acid).
Para-aminophenol (see p-Aminophenol).
Parachlorophenol (see p-Chlorophenol).
Parachloro-orthonitroaniline (see 4-Chloro-2 nitroaniline).
Para-anisidin (see p-Ansidine)
Parachloraniline (see p-Chloraniline).
Parachlorobenzaldehyde (see p-Chlorobenzaldehyde).
Paracresol (see p-Cresol).
Paradibromobenzene (see p-Dibromobenzene).
Paradichlorobenzene (see p-Dichlorobenzene).
Para toner, red, bbls lb. 1.30 • —
Chlorinated, kgs. lb. 1.41 • —
Paraffin, crude, scale, white, 123°-127°F., ASTM tanks, refy. lb. .0655- .0660
Fully refd., 122°-124°F., ASTM, lb. .0765- —
125°-127°F., ASTM, tanks, refy. lb. .0763- —
130°-132°F., ASTM, tanks, refy. lb. .0763- —
132°-134° F., ASTM, tanks, refy. lb. .0763- —
135°-137°F., ASTM, tanks, refy. lb. .0765- —
AMP temperatures are an arbitrary 3°F higher than ASTM
Paraffin oil, pale, 100-110 vis., at 100°F., tanks east coast refy gal. .17½ • —
Paraffin wax (see Paraffin)
Paraformaldehyde 91% flake, bgs., c.l., frt alid lb. .10 • —
bgs. l.c.l., frt alid lb. .12 • .13
91%, powd., bgs. c.l. ex whse. lb. .1715- —
bgs., l.c.l., ex whse lb. .1865- —
USP-X, fib. dms., c.l. f.o.b., works lb. .19 • —
fib. dms., 1,000-lb. lots, same basis lb. .20 • —
fib. dms., smaller lots, same basis lb. .21½ • —
Paraldehyde tech., 98% 55-gal. dms., t.l., dlvd. E lb. .14 • —
55-gal. dms., l.c.l., dlvd. E lb. .15½ • —
tanks, dlvd. E lb. .11½ • —
Paranitraniline (see p-Nitroaniline).
Paranitrochlorobenzene (see p-Nitrochlorobenzene)
Paranitrotoluene (see p-Nitrotoluene).
Paranitrophenol (see p-Nitrophenol).
Paraphenetidine (see p-Phenetidine).
Paraphenylenediamine (see p-Phenylenediamine).
Paraphenylphenol (see p-Phenylphenol)
Para-tertiary-amylphenol (see p-tert-Amylphenol).
Para-tertiary butylphenol (see p-tert-Butylphenol)
Parathion ethyl, dms. frt alid lb. .84 —
Parathion prices 2c per lb higher in West.
Paratoluenesulfonamide (see p-Toluenesulfonamide)
Passion flower herb, bls lb .35 .40
Patchouli oil, imp., cns. lb 5.60 6.50
Peach kernel oil USP (see Apricot kernel oil).
Peacock blue, fugitive, 100% color strength, 250-lb. bbls., dlvd E of Rockies lb 1.00 —
Peacock blue price 1c higher W of Rockies.
Peanut meal, old process, 45% bgs., f.o.b. mills ton 67.00 Nom.
solvent, same basis ton 65.00 Nom.
Peanut oil crude, tanks, f.o.b. mills. lb. .17½ • —
Refd., dms. lb. .22½ • .23¾
tanks lb. .20½ • —
Pectin, dom., NF, citrus, powd., 100 kilos, f.o.b. shipt pt kilo 4.52 —
Pelargonic acid, dms., c.l., dlvd. E lb. .27½ • —
ton lots, same basis lb. .28½ • —
tanks, same basis lb. .25 • —
Penicillin, potassium, cryst., bulk, 1,000,000 units. .018 • —
Penicillin, procaine, cryst., bulk, 1,000,000 units. .020 • —
Pennyroyal oil USP imported, cns. lb. 2.35 • 2.80
Pentachlorophenol, 50-lb. bgs., c.l., t.l., works, frt. equald lb. .21 • —
bgs., less than ton-lots, same basis. lb .29 • —
bgs., c.l., t.l., 2,000 lb. minimum, same basis lb. .22½ • —
Pentachlorophenol in dms. 1c. higher.
Pentaerythritol, tech., bgs., c.l., dlvd lb. .29 • —
bgs., l.c.l., dlvd lb. .30 • —
Pentaerythritol, di- and tri-isomers (see Dipentaerythritol and Tripentaerythritol).
Pentane, indust. tanks, Tex refy. gal. .14 • —
Pentobarbital, dms., 100 lbs. or more lb. 6.00 • —
Pepper, black, Malabar, bgs lb. .45½ • —
Lampong, bgs. lb. .45 • —
Red, Funtuas, bgs. lb. .30 • .31
Japanese, Hontoka, bgs lb. .40 • —
Santaka, bgs. lb. .30 • .31
Sudanese, bgs. lb. .52 • .56
White, Muntok, bgs lb. .52 • —
Peppermint leaves, dom., USP, bls., dms lb. No stocks.
imp., USP dms. lb. .85 • .90
Peppermint oil, nat., dms lb. 4.00 • 4.40
Redist., USP, dms lb. 4.25 • 4.65
Perchloroethylene, dms., c.l., or t.l., dlvd lb. .13½ • —
dms., l.c.l., dlvd. lb. .15¼ • —
tanks, dlvd lb. .11¾ • —
tanktruck, 1,000 gal min dlvd lb .12¼ • —
Peri acid, dry bbls., frt alid lb. 1.60 • —
Paste, bbls. frt alid lb 1.55 • —
Peru balsam, dms lb 1.15 • 1.50
Persic oil USP (see Apricot kernel oil).
Petitgrain oil South American, cns., dms lb. 2.30 • —
Petrolatum, NF, cream, dms., c.l., refy lb. .085 .08625
dms., l.c.l., dlvd lb. .11125 .11250
tanks, refy. lb. .0625 .06375
NF, extra amber, dms., c.l., refy. lb. .07625- —
dms., l.c.l., dlvd lb. .1025- —
tanks, refy. lb. .05375- —
NF, soft yellow, dms., c.l., refy lb. .07625- —
dms., l.c.l., dlvd. lb. .1025- —
tanks, refy. lb. .05375- —
USP, lily white, dms., c.l., refy lb .09125- .09675
dms., l.c.l., dlvd lb. .1175- .1225
tanks, refy. lb. .0-375- —
USP, snow white, dms., c.l., refy. .09625- —
dms., l.c.l., dlvd. lb. .1225- —
tanks, refy. lb. .07375- —
Full tankwagons of petrolatum are ¼c. more per lb. than tankcars.
Petroleum pitch (see Asphalt, petroleum).

**PETROLEUM PRODUCTS**
**Petroleum product quotations are listed individually. For example, prices on Petroleum mineral spirits, may be found in the M's under Mineral spirits, petroleum.**

Petroleum sulfonate, oil soluble, 60-62% sulfonic content, non-ret dms., c.l. works. lb. .16½ .18¾
non-ret. dms., l.c.l., works lb. .17½ .19
tanks, works lb. .14½ .17
50-55% sulfuric content, non-ret. dms., c.l., works lb. .16 • —
non-ret. dms., l.c.l., works lb. .17 • —
tanks, works lb. .13 • —
o-Phenetidine, dms., c.l., frt. alid. E lb .91 • —
dms., l.c.l., same basis lb. .93 • —
p-Phenetidine, dms., c.l., frt. alid. lb. 1.05 • —
dms. same basis lb 1.08 • —
Phenobarbital, USP, dms., 100-lbs., frt. alid lb. 2.85 • 3.25
Phenobarbital-Sodium (see sodium phenobarbital).
Phenol, 90-92% (cresol 8-10%), non-ret. dms., frt. alid E. of Rockies lb. .16½ • —
non-ret. dms., l.c.l., same basis. lb. .17½ • —
tanks, same basis lb. .14½ • —
82-84% (cresol 16-18%), non-ret. dms., c.l., same basis lb. .16¼ • —
non-ret. dms., l.c.l., same basis. lb. .17¼ • —
tanks, same basis ⅝lb. .14¼ • —
39°C., or above, tar dist., non-ret. dms., c.l., same basis lb. .17¾ • —
non-ret. dms., l.c.l. lb. .18¾ • —
tanks, same basis lb. .15¾ • —
Phenol, USP, syn., dms., c.l., t.l., frt. alid. lb. .18¼ • —
dms., l.c.l., same basis lb. .20¼ • —
tanks, same basis lb. .16¼ • —
Phenolphthalein, USP or yellow, 250-lb dm., 2,000 lbs. frt. alid lb. 1.30 • —
250-lb dm., same basis lb 1.35 • —
Phenothiazine drench fib dms., t.l., dlvd lb. .46 • —
fib. dms., ton lots, dlvd lb. .49 • —
NF, fib. dms., t.l., dlvd lb. .45 • —
fib. dms., ton lots, dlvd lb. .48 • —
Phenyl acetate, dms. 100-lb. lots, works lb. .50 • —
Phenyl salicylate (see Salol)
Phenylacetaldehyde, soln., 50% bots lb 2.15 2.35
100%, bots. lb 3.80 4.00
Phenylacetic acid, pure, cryst., cns lb 1.25 1.75
di-Phenylalanine, dms., 1-kilo kilo. 65.00 • —
1-Phenyl-3-carbethoxy pyrazolone-5, fib dms. 200-lb lots, dlvd E lb 3.45 • —
fib dms. smaller lots, dlvd E lb 3.80 • —
N-Phenyldiethanolamine dms., c.a., dlvd E lb .50 • —
dms., l.c.l., dlvd E lb. .51½ • —
tanks, dlvd. E lb. .47½ • —
m-Phenylenediamine dms., c.l., t.l., frt alid lb. 1.08 • —
l.c.l., t.l.l. same basis lb. 1.10 • —
o-Phenylenediamine, comi. fib. dms. 100 to 1,000 lbs., works. lb. 1.70 • 1.80
p-Phenylenediamine, tech., dms, works lb 1.55 • —
Phenylethanolamine, dms. c.l., works lb. 75½ • —
dms., l.c.l., same basis lb. 76¼ • —
Phenylethyl acetate bots lb 1.25 1.40
2-Phenylethyl alcohol, extra, dms. lb 1.14 1.50
Standard, dms lb 1.00 1.60
b-Phenylethylamine dms. 20,000 lbs. or more, frt alid lb 1.50 • —
dms. smaller lots, frt alid lb 1.70 1.85
Phenylethylphenyl acetate bots lb 4.00 4.25
Phenylglyconic acid (see Mendelic acid).
Phenylhydrazine 97% 450-lb dms. lb 1.45 • —
1-Phenyl-3-methyl pyrazolone-5, fib. dms., 250-lb lots, dlvd E. lb 1.80 • —
fib dms., smaller lots, dlvd E lb. 2.10 • —
o-Phenylphenol dms. l.c.l. works. lb. .48 • .50
p-Phenylphenol, bgs. c.l. works lb. .38½ • —
bgs., l.c.l., works lb. .43 • —
Philippine copal gum, pale, chips, bgs lb. .23¼ .27
nubs, bgs. lb. .33¼ .37
seeds, bgs. lb. .20 Nom.
sorts, bgs. lb. .20 .24
Phloroglucinol, comi., fib dms., works lb 6.40 • —
CP, bots., works lb. 17.75 • —
Tech., fib dms. works lb. 10.45 • —
Phloxin red toner (see Eosin red toner)
Phosgene, ret cyls. works lb. 15¼ • —
Phosphate defluorinated (see under D)
Phosphate rock, Curacao, Atlantic ports, New Orleans ton. 46.50 • —
Phosphate rock, Florida, land pebble, run-of-mine, washed, dried, unground, 66-68%, b.p.l., bulk, c.l., mines, short-ton. 4.989 5.398
68-70%, b.p.l., bulk, c.l., same basis short-ton. 5.849 5.858
70-72%, b.p.l. bulk, c.l., same basis short-ton 6.429 6.438
74-75%, b.p.l., bulk, c.l., same basis short-ton. 7.329 • 7.338
76-77%, b.p.l., c.l., bulk, same basis short-ton 8.219 8.228
Above Florida prices are based on fuel oil at 2.52 per bbl. and labor at $1.64.
Phosphoric acid, food grade, 75%, cbys., c.l. works, E., frt. equald 100 lbs. 7.00 • —
cbys., l.c.l., same basis 100 lbs 7.25 7.75
tanks, t.w., works 100 lbs 5.60 • —
80% cbys., c.l. frt equald 100 lbs 7.85 —
cbys., l.c.l., works 100 lbs 8.10 9.35
tanks, t.w., works 100 lbs 6.00 —
NF 85% cbys., c.l., works 100 lbs 8.50 —
cbys., l.c.l., works 100 lbs 8.75 9.00
tanks, t.w., works 100 lbs 6.65 —

**Phosphorus, amorph., red, dms., t.l., works** lb .55 - —
**dms., smaller lots, works** lb .56 - .57
**white (yellow), solid, dms., c.l., works, frt. equald** lb .20 - .20½
**dms., l.c.l., works, frt. equald** lb .21½- —
**tanks, works, frt. equald.** lb .19 - —
**Phosphorus oxychloride, dms., c.l., works** lb .14 - —
**dms., l.c.l., works** lb .15 - —
**tanks, works, frt. equald** lb .12½- —
**Phosphorus pentasulfide, powd., dms., c.l., works** lb .13½- —
**cms., l.c.l., works** lb .14½- .15½
**Solid, dms., c.l., works** lb .11½- —
**dms., l.c.l., works** lb .12½- .13½
**Phosphorus pentoxide, dms., c.l., works** lb .1375- .1475
**dms., l.c.l., works** lb .1475- .1675
**Phosphorus sesquisulfide, dms., cs., c.l., works** lb .38 —
**dms., l.c.l., works** lb .39 .40
**Phosphorus trichloride, dms., c.l., works** lb .14 - —
**dms., l.c.l., works** lb .15 - —
**tanks, works** lb .12½- —
**Phthalic anhydride bgs, c.l., works, frt. equald** lb .18 - —
**bgs., l.c.l., same basis** lb .19 - —
**tank-, same basis** lb .17½- —
**Phthalimide 97-98%, dms., frt. alld lb** .65 - —
**Phthalocyanine blue, full strength, bbls, dlvd E of Rockies,** lb 2.90 - —
**Resinated, bbls, same basis** lb 2.75 - —
**Water dispersable, bbls., same basis** lb 1.52 — —
**Phthalocyanine blue prices 1c higher W of Rockies**
**Phthalocyanine green toner, bbls., works** lb 3.35 - —
**Resinated, bbls.** lb 3.00 - —
**Water dispersable, bbls.** lb 1.71 - —
**Phthalocyanine green prices 1c higher W of Rockies**
**Phthalyisulfacetamide, fib, dms., 1,000-lb. lots or more** lb 5.00 - —
**NF fib dms** lb 5.20 - —
**α-Picoline dms, c.l., works, frt. equald** lb .46 - .48
**dms., l.c.l., same basis** lb .47 - .49
**tanks, same basis** lb .43 - .46
**b-Picoline 98% dms., t.l., works, dms., l.c.l. same basis** lb 1.05 - —
**tanks, same basis** lb 1.15 - —
**b,g-Picoline 5°C dms., c.l., works, dms, l.c.l. works** lb .32½- —
**tanks** lb .33 - —
**g-Picoline dms., t.o.b., works** lb 1.60 - —
**tanks, t.l. same basis** lb 1.50 - —
**Picric acid, NF bbls.** lb .85 - —
**tech., bbls** lb .50 - —
**Piroment green B, kgs** lb 1.55 - —
**Pilocarpine hydrochloride, USP, bots** oz 4.75 - 5.25
**Pilocarpine nitrate USP bots., vials.** oz 4.65 - 5.15
**Pimento, Jamaican, bgs.** lb .69 - .72
**Mexican, bgs.** lb .61 - —
**Pimento berry oil, NF, dms.** lb 3.75 9.25
**Pimento leaf oil, crude, cns** lb 2.50 - 2.60
**Pine oil, dest-dist., dms., l.c.l., works** lb .15 - —
**dms, l.c.l ex whse New York.** lb .173 — —
**Steam-dist, dms, ex whse, New York** lb .185 — —
**dms., dlvd** lb .188 — —
**Pineneedle oil, Siberian (see Abies Sibirica oil).**
**Pink root, bls.** lb 2.25 - —
**Piperazine anhyd., dms, c.l., frt. alld, E** lb 1.80 - —
**dms., l.c.l., frt alld, E** lb 1.85 - —
**Piperazine citrate, 36% dms., 1,000 lbs. or more, frt. alld** lb 1.33 - —
**Piperazine dihydrochloride 51%, dms, 1,000 lbs or more, frt alld** lb 1.29 - —
**Piperazine hexahydrate, 44%, dms., 1,000 lbs. or more, frt. alld** lb .90 - —
**dms., 200-900 lbs., frt. alld** lb .93 - —
**Piperazine phosphate, 42%, dms., 1,000 lbs or more, frt. alld** lb 1.11 - —
**Piperidine, dist., 98% min., 5 dms. or more, l.c.l., t.l., f.o.b. works** lb 2.65 - —
**1-4 dms., same basis** lb 2.75 - —
**dms., c.l., t.l., frt. equald** lb 2.55 - —
**Piperonyl butoxide dms, dlvd E** lb 4.50 5.05

**PITCHES**

**Pitch quotations are listed individually. For exemple, prices on Pitch, coaltar, may be found in the C's under Coaltar pitch.**

**Platinum metal, works** oz 81.00 -85.00
**Pleurisy root, bls.** lb .45 .50
**Podophyllum resin, NF, dms** lb 12.50 -15.50
**Poke root, bls.** lb .19 .22
**Polymyxin, bots., bulk, 50 billion units or more 1,000,000 units.** .53 - —
**bulk, bots., 25-50 billion units. 1,000,000 units.** .54 - —
**bulk, bots., 1-25 billion units. 1,000,000 units.** .56 - —
**Polyoxyethylene sorbitan monostearate, dms., 20,000-lb. lots, works** lb .43 - —
**dms., 10,000-20,000-lb. lots, works.** lb .44 - —
**dms, smaller lots, works** lb .47 .49
**Polyoxyethylene sorbitan tristearate, dms., 20,000-lb. lots, works** lb .43 - —
**dms., 10,000-20,000-lb lots, works** lb .44 - —
**dms., smaller lots, works** lb .47 .49
**Pontianak copal gum, chips, bgs** lb .23½- .26
**lumps, bgs** lb .38 .44
**Puppy seed, Argentine, bgs.** lb No stocks.
**Dutch, brs.** lb .13 - —
**Danish, bgs.** lb .12 - —
**Polish, bgs.** lb .12½- —
**Turkish, bgs.** lb .11 - —
**Potash caustic, liq., 45% basis, dms., c.l., works** 100 lbs 4.25 - —
**dms., l.c.l., same basis** 100 lbs 5.25 - —
**tanks, same basis** 100 lbs 3.70 - —
**reg., flake, 88-92% dms., c.l., same basis** 100 lbs 9.55 - —
**dms., l.c.l., same basis** 100 lbs 11.05 - —
**Potash, caustic, solid, 88-92%, dms., c.l., works** 100 lb 9.16 - —
**dms, l.c.l., works** 100 lbs 10.60 - —
**Potassium acetate, NF, 200-lb dms, f.o.b works, E** lb .31 - —
**Potassium bicarbonate, USP, gran., dms** lb 22 - —
**powd. dms.** lb 24 - —

**Potassium bichromate, gran., bgs., c.l., t.l., works** lb .18 - —
**bgs., l.c.l., works** lb .18½ - .19¾
**Potassium bichromate in dms. ¾c. higher.**
**Potassium bitartrate, NF, gran., powd., 100-lb. bgs., c.l., frt. equald** lb .37 - —
**100-lb. bgs., 5,000 lbs., 1 shipt., same basis** lb .38 - —
**100-lb bgs. smaller lots, same basis** lb .40 - —
**Potassium borohydride, powd., dms., works** lb 16.00 -22.00
**Pelletized potassium borohydride $1.25 per lb. higher in 1,000-lb lots**
**Potassium bromate, 200-lb. dms., c.l., frt. alld** lb .49 - —
**Potassium bromide, USP, gran., bbls., kgs** lb .39 .40
**Potassium carbonate, dom., NF, gran., bbls., dms** lb .22 - .24
**Dom. tech. powd., bbls., dms** lb .21 .22
**Dom. calcinated, bgs., c.l., works, 100 lbs.** 8.50 - —
**bgs., l.c.l., same basis 100 lbs.** 9.55 - —
**Dom. hydrated 83-85%, bgs., c.l., works 100 lbs.** 7.10 - —
**bgs. l.c.l. works 100 lbs.** 8.15 - —
**Potassium chlorate cryst. dms., c.l., works** lb .12¼- —
**dms., l.c.l., works** lb .13¼- .14½
**Powd., dms., c.l., works** lb .12¾ —
**dms, l.c.l. works** lb .14 .15
**works** lb .12¼- —
**Potassium chlorate, NF, cryst., dms., 2,000 lbs. or more, works** lb .16¾- —
**NF, gran., 25-lb metal dms** lb .36 —
**NF powd. dms., 2,000 lbs. or more, works** lb .17¼- —
**Potassium chloride indust., 99.9% KCL, bulk, c.l., works** ton 29.00 - —
**bgs., c.l., works** ton 28.00 - —
**99.3% KCL bulk, c.l., works** ton 28.00 - —
**bgs., c.l., works** lb 33.00 - —
**USP, cryst., dms** lb .31 00 - —
**USP, gran., dms** lb .21 - .23
**USP, powd., dms** lb .24 - .26
**Potassium chloride agricultural (see Potassium muriate)**
**Potassium chromate, tech., dms., works** lb .50 .51
**Potassium citrate, NF, gran., 250-lb. dms., f.o.b. works E** lb .43 - —
**powd. 250-lb dms. same basis.** lb .46 - —
**Potassium cyanide, dms., 20,000-lb. lots or more, dlvd. E** lb .42½- —
**dms., 5,000-19,999-lb. lots, works** lb .43 —
**dms., 2,000-4,999-lb. lots** lb .43½- —
**dms., 1,999-lb. lots or less** lb .44½- .46½
**Potassium dichromate (see Potassium bichromate).**
**Potassium ferricyanide, dms., ton lots, works** lb .50 —
**dms., smaller lots works** lb .65 —
**Potassium ferrocyanide, dms., ton lots** lb .24½- —
**dms, smaller lots** lb .29 —
**Potassium fluoborate fib dms., c.l., works** lb .30 - —
**fib dms, l.c.l. works** lb .31 - —
**Potassium fluoride, dms., works** lb .36 .37
**Potassium gluconate, 100-lb dm., f.o.b works & lb** 1.67 - —
**Potassium guaiacol sulfonate, NF, dms** lb 2.10 2.30
**Potassium hydroxide, tech (see Potash caustic)**
**Potassium hydroxide, USP, pellets, 100-lb dms, 1 to 100-dm. lots** lb 33½ .38
**Potassium hypophosphite, NF fib dms, 1,000 lb. lots** lb 1.38 - —
**Potassium iodide USP cryst. gran., 250-lb. dm., f.o.b. works** lb 1.55 - —
**Potassium manure salt, min. 20% K₂O, bulk, c.l., works, unit-ton** .17 - .1705
**Potassium metabisulfite, gran. dms., powd., dms** lb .16 — —
lb .27 — —
**Potassium muriate, standard, bulk, c.l., works unit-ton** .36 - .38
**bagged 60% minimum K₂O, same basis ton** 26.60 -27.80
**Gran., bulk, c.l., works unit-ton** .39 - .41
**bagged 60% minimum K₂O, same basis ton** 28.40 -29.60
**Inside prices apply to material contracted for prior to July 1, 1961.**
**Outside prices apply to material contracted for after that date but also for delivery during the current month**
**Potassium nitrate, NF cryst., bbls., 20 ton lots** 100 lbs 12.00 —
**bbls., smaller lots** 100 lbs 18.00 19.00
**gran., bgs. 20-ton lots** 100 lbs 9.50 —
**bgs., smaller lots** 100 lbs 11.00 12.00
**powd., bgs., 20-ton lots** 100 lbs 10.50 —
**bgs., smaller lots** 100 lbs 12.00 13.00
**Potassium oxalate, neutral, tech., fine gran., powd., 300-lb. dm. f.o.b. works E** lb .32 —
**Potassium pentaborate, gran. dms., c.l. works** ton 219.50 —
**dms., ton lots ex whse** 100 lbs 17.48 - —
**dms., smaller lots, ex whse** 100 lbs 18.73 —
**Powdered potassium pentaborate $10 per ton higher.**
**Potassium perchlorate, dms., c.l., works** lb .18½ —
**dms, l.c.l. works** lb .19 .20
**Potassium permanganate, comi., kgs. works** lb .25 .33
**USP dms, works** lb .29 .35
**Potassium pyrophosphate, tetrabasic, dms., works** lb 1575 1575
**Potassium prussiate red (see Potassium ferrocyanide)**
**Potassium prussiate yellow (see Potassium ferro-cyanide)**
**Potassium silicate electrical grade, 30° Be. 1:2.0, dms., c.l., works** 100 lbs 6.50 - —
**dms., l.c.l., 5 dm. lots or more, works** 100 lbs 7.25 7.65
**tanks, works** 100 lbs 6.15 —
**40.5° Be 1:2.1, dms., c.l., works** 100 lbs 5.95 - —
**dms, l.c.l. 5 dm. lots or more, works** 100 lbs 6.70 —
**tanks, works** 100 lbs 5.60 —
**Glass grade, bgs., c.l., works** 100 lbs 17.30 -18.00
**bgs., l.c.l., works** 100 lbs 17.80 —
**Soln., 29° Be. 1:2.5, dms., c.l., works** 100 lbs 4.95 —
**dms, l.c.l., 5 dm. lots or more, works** 100 lbs 5.70 —
**tanks, works** 100 lbs 4.60 —
**Potassium silicofluoride, bgs, works** lb .09½ 10
**Potassium silicofluoride in drums, 0.4c per lb higher**
**Potassium stannate dms, frt. alld.** lb .870 - .943

**Potassium sulfate, min. 50% $K_2O$, agricultural, bulk, c.l., works, unit-ton** .65¼- .67½
**Inside price applies to tonnage contracted for prior to July 1, 1961.**
**Outside price applies to tonnage contracted for after that date but also for delivery during the current month.**
**Potassium sulfate NF VII, cryst., dms.,** lb .31 - .33
**NF VII, gran., 400-lb. dm** lb .18 - —
**NF VII, powd., 400-lb dm** lb .17 - —
**Potassium sulfocyanate, NF, cryst., (see Potassium thiocyanate).**
**Potassium thiocyanate, NF, cryst., dms., works** lb .98 - .99
**Tech., dms., works** lb .77 - .79
**Potassium titanate, cms., c.l., works, ctns., 5-ton lots, works** lb .16¼- —
**ctns., 1-ton lots or less, works** lb .16½- —
**Potassium-magnesium sulfate, basis 40% $K_2SO_4$ and 18% MgO, bulk, works base price.** ton 13.45 - —
**bulk, works, July forward** ton 14.00 - —
**Potassium-sodium tartrate, NF gran. or powd., 250-lb dms., c.l., works** lb .42½- —
**250-lb dms, 5,000-lb lots, same basis** lb .43 - —
**250-lb. dms., same basis** lb .43¼- —
**Potassium-titanium fluoride, fib, dms., works** lb .39 - .40
**Potassium-zirconium flouride, fib, dms, c.l., works** lb .50 - —
**fib. dms., l.c.l. works** lb .52½- .55
**Pregnenolone, bots.** gram. No prices.
**Pregnenolone acetate, bots.** gram. No prices.
**Procaine hydrochloride USP antibiotic grade dms., 2,000-lb. lots, frt. alld.** lb 2.10 - 2.25
**USP, ampule grade, dms., 1,000-lb. lots, frt. alld** lb 2.40 - —
**dms., 500 lbs** lb 2.45 - —
**dms., 100 lbs** lb 2.50 - —
**Progesterone, USP bots** gram. No prices.
**Pregnenolone acetate bots** gram. No prices.
**Propenyl guaethol dms** lb 24.30 -27.00
**b-Propriolactone tech., dms., c.l., f.o.b. works** lb .47½- —
**dms., l.c.l., t.l., same basis** lb .48½- —
**tanks, same basis** lb .45 - —
**Propionic acid syn. pure, dms., c.l., dlvd** lb .23¼- —
**dms., l.c.l., dlvd.** lb .24¾- —
**tanks, dlvd** lb .20¾- —
**n-Propyl acetate, dms., c.l., dlvd.** lb .14¾- —
**dms., l.c.l., dlvd** lb .16¼- —
**tanks, dlvd** lb .12¼- —
**n-Propyl alcohol, dms, c.l., dlvd** lb .14 .15
**dms., l.c.l., dlvd** lb .15½- .16¼
**tanks, dlvd** lb .11½- .12½
**n-Propyl gallate, dms., 100 to 2,000-lb lots works** lb 3.90 - 4.40
**n-Propyl-p-hydroxybenzoate, USP, dms** lb 2.30 - 2.40
**Propyl thiouracil bots., 50 kilo lots or more** kilo 55.00 —
**bots., smaller lots** kilo 55.10 -55.30
**n-Propylamine dms., c.l., dlvd** lb 1.24 —
**dms., l.c.l. same basis** lb 1.255 - —
**n-Propylene dichloride consumers, dms, c.l. dlvd. E** lb .0845- —
**dms., l.c.l., same basis** lb .0995- —
**tanks same basis** lb .07 - —
**Propylene dichloride prices in West 1c, higher, same basis**
**Propylene glycol indust., dms., c.l., dlvd. E** lb .15 - —
**dms., l.c.l., same basis** lb .16¾- —
**tanks, same basis** lb .12½- —
**USP dms., c.l., dlvd E** lb .17 - —
**dms, l.c.l., same basis** lb .18¾- —
**tanks, same basis** lb .14½- —
**Propylene glycol methyl ether, dms., c.l., dlvd** lb .20 - —
**dms., l.c.l., same basis** lb .21 - —
**tanks, same basis** lb .18½- —
**Propylene oxide dms, c.l., dlvd E.** lb .17 - —
**dms., l.c.l., dlvd E** lb .18½- —
**tanks, dlvd, E** lb .14½- —
**Psyllium seed, black, bgs** lb .42 - .45
**Blonde bgs** lb .18 - .20
**Husks, bgs.** lb .45 - .48
**Pumice, dom., grd. coarse to fine, 0, ½, 1, 1½, 2, 3, bgs.,** ton lots lb .03⅝- .04¼
**bgs., smaller lots** lb .03⅞- —
**Imp., Italian silk-screen, coarse, bgs. ton lots** lb .06½- —
**fine, bgs. ton lots** lb .04 - —
**sun dried, coarse, bgs** ton 60.00 —
**fine, bgs** ton 60.00 -70.00
**Pumpkin seed, ngs** lb .25 - .26
**Pyrethrins, syn (see Allethrin).**
**Pyrethrum flowers, fine grd. 0.9% pyrethrins, bgs., ton, works** lb .50 - —
**Powd., 1.3% pyrethrins, bgs., ton works** lb .71 - —
**Pyrethrum liquid, 20 1 basis (2 grams pyrethrins per 100cc odorless base), dms., works** gal 9.60 - 9.80
**100/1 basis (10 grams pyrethrins per 100cc odorless base), dms., works** gal 45.90 -46.90
**Pyrethrum oleoresin dewaxed 20%, dms., works** lb 11.00 -11.35
**purif, 20%, dms, works** lb 11.00 -11.35
**Pyridine, denat., dms, c.l. works and frt. equald** gal 2.77 - —
**dms., l.c.l., same basis** gal 2.80 - —
**Refd., 2° non ref., dms., c.l., same basis** lb .75½- —
**dms., l.c.l., same basis** lb .76 - .76½
**tanks, same basis** lb .71 - —
**Potassium persulfate, dms., c.l., works** lb .17½- —
**dms, l.c.l., works** lb .18 - .21
**Pyridoxine hydrochloride, USP, dms., f.o.b. works** kilo 90.00 - —
**Pyrites, Canadian 48-50% S, mines, long-ton** 4.50 5.00
**Pyrocatechol (see Catechol)**
**Pyrogallic acid, NF (see Pyrogallol).**
**Pyrogallic acid tech. bbls., 100-lbs., f.o.b. works** lb 3.50 - —
**Pyrogallol, NF, 100-lb dms** lb 3.50 - —
**Pyroxylin, USP bots** lb 9.50 - —

## Q

**Quassia chips** lb .10 - —
**Quicksilver (see Mercury metal)**
**Quince seed, bgs** lb 1.55 - 1.75
**Quinidine sulfate USP, 1,000-oz. dm** oz .78½- —
**Quinine, NF, 1,000-oz. dm** oz .3750- —
**Quinine bisulfate USP 1,000-oz dm, oz** .28 - —
**Quinine hydrochloride, 1,000-oz dm, oz** .3650- —
**Quinine sulfate USP 1,000-oz dm** oz .3150- —
**Quinoline dms, c.l. frt. equald** lb .50¾- —
**dms., l.c.l., same basis** lb .51¼- —
**tanks, same basis** lb .50 - —

## R

**R salt paste, dms., c.l., t.l., frt. alld., 100% basis** lb .98 - —
**Powd., dms., c.l., t.l., frt. alld, 100% basis** lb 1.08 - —

**Rapeseed oil, dms.** lb .19 - .19¼
**tanks** lb .17¼- —
**Rare earth oxalate, NF, 45-50%, bgs, works** lb 1.18 - —
**Rauwolfia serpentina root, powd., bbls., dms** lb 1.00 - 1.20
**Red carmine, No. 40 (see Carmine).**
**Red oil (see Oleic acid).**

**RED PIGMENTS**

**Red pigment quotations are listed individually For example, prices on Red, lithol toner, may be found in the L's under Lithol red toner**

**Red precipitate (see Mercuric oxide, red)**
**Red toner, Lake C, alizanine, bbls., works** lb 1.30 - —
**Reserpine, cryst., bots** gram 1.25 - —
**Resorcinol, tech. grade, bgs., c.l., works, frt equald** lb 77½- —
**bgs., l.c.l., same basis** lb .78½- —
**Resorcinol in dms. 1c, per lb more.**
**Resorcinol monoacetate, NF dms.** lb 2.50 - —
**USP, powd., dms., works** lb 2.95 - —
**Rhatany root, bgs** lb .14 - .16
**Rhodamine red toner, molybdated, PMA, kgs., works** lb 6.00 - —
**Tungstated, PTMA works, kgs** lb 6.60 - —
**Rhodinol, 5-lb cans** lb 42.00 -51.00
**Synthetic** lb 14.00 -16.00
**Rhubarb root, India, whole, bgs** lb .25 - —
**powd., bgs** lb 35 - —
**Riboflavin, USP fib dms., kilo or more, dlvd** kilo 36.00 - —
**Riboflavin - 5 - phosphate-sodium, f.b. dms, kilo or more, dlvd.** kilo 104.70 - —
**Rice bran oil, clarified, dms., t.c.l. tanks, dlvd, E** lb .15½- —
**Ricinoleic acid (see Castor oil acids split).**
**Rochelle salt (see Potassium sodium tartrate)**
**Roofing pitch (see Coaltar pitch, roofing).**
**Rose oil, nat., Bulgarian, bots** lb 1,152.00 —
**Turkish, bots., otto** lb 600.00 -700.00
**absolute** lb 145.00 - —
**Rosemary oil, Spanish, NF, cns., dms** lb 1.15 - 1.20
**Spanish, tech., cns., dms** lb .80 - .95
**Rosin gum and wood (see Naval Stores in Protective Coatings market)**
**Rotenone, fib, dms., works unit-lb.** .10½- —
**Resin, 25-45% fib dms., works unit-lb.** .10½- —
**Rottenstone, bgs., 5-ton lots, ex whse** lb .03¾- —
**bgs. ton lots, same basis** lb .04¼- —
**Rubber solvent, petroleum, 115°-145° F b.r., tankcars, New Jersey and New York, Group 3** gal .19 —
**Houston, Texas** gal .13875- —
**Rue oil, bots** gal .155 —
**Rutin, NF fib dms., 10 kilo lots** lb 2.75 3.00
**fib. dms., 5 kilo lots** kilo 11.00 - —
**fib. dms., 1 kilo** kilo 13.50 - —
**Ryania, 100%, powd., bgs., c.l., works** lb .22 - —
**bgs., l.c.l., same basis** lb .24 - —

## S

**S acid, bbls., works** lb 3.25 - —
**Sabadilla seed, activated, ground with lime, bbls** lb .42 - .44
**Saccharin, calcium, fib dms, 1,000-lb lots, works** lb 2.50 - —
**Saccharin, USP, gran., soluble, dms., 1,000-lb. lots** lb 1.50 —
**dms., smaller lots** lb 1.60 - —
**USP, powd., soluble, dms., 1,000-lb. lots** lb 1.55 - —
**dms., smaller lots** lb 1.65 - —
**USP, powd., insoluble, dms., 1,000-lb. lots** lb 1.53 - —
**dms., smaller lots** lb 1.63 - —
**Safflower oil, dms., New York** lb .19 - .20
**tanks, Atl. coast** lb .17½- —
**Saffron Mancha Superior, tins** lb 19.50 - —
**Safrol, dms** lb 95 - —
**Sage, Dalmatian, bgs** lb 40 - —
**Greek, cns.** lb 15 - —
**Italian, cns.** lb 18 - —
**Sage oil, clary, bots** lb 12.00 -15.00
**Dalmatian, cns.** lb 2.85 - 3.25
**Spanish, cns** lb 1.25 - 1.75
**Sal soda (see Soda ash).**
**Salicylaldehyde, dms., c.l., t.l., f.o.b., plant, frt. equald** lb 1.23 - —
**dms, l.c.l., same basis** lb 1.25 - —
**Salicylamide, 100-lb dms** lb 1.05 - —
**Salicylic acid, tech., fib, dms., c.l., t.l., dlvd** lb .40½- —
**fib dms, l.c.l., dlvd** lb .44¾- —
**USP, cryst., 200-lb. fib. dms., 1,000 lbs. or more** lb .51¾- —
**200-lb. fib. dms., less than 1,000 lbs** lb .54¾- —
**100-lb. fib. dms., 1,000 lbs. or more** lb .53¾- —
**100-lb. fib. dms, less than 1,000 lbs** lb .56¾- —
**USP, pwd., 100-lb. fib. dms., 1,000 lbs. or more** lb .56¾- —
**100-lb fib. dms., less than 1,000 lbs** lb .58¾- —
**Salol, NF gran., bbls., kgs** lb 81¾- —
**Powdered salol 25c per lb higher.**
**Salt rock, paper bgs, c.l. 100 lbs** 1.20 —
**Salt, table vacuum common, tine, paper bgs, c.l 100 lbs** 1.09 - —
**Saltcake, dom., bulk, works, 100% $Na_2SO_4$ basis** ton 28.00 - —
**Saltpeter (see Potassium nitrate)**
**Sandalwood E. Indian, chips, bgs., powd, fib dms** lb .55 - .66
**Sandalwood oil, cns.** lb 75 — 76
**Sarcosine, tech, tanks, f.o.b., works, frt equald** lb 27.00 -30.00
**Sassafras oil, artif., dms** lb 1.03 —
**Nat., dom., dms** lb No stocks.
**Savory oil, cns** lb .65 —
**Schaeffer's salt paste, dms., frt. alld 100% basis** lb 1.40 - —
**Powd, bgs, frt alld, 100% basis.** lb 4.75 - —
**Scopolamine hydrobromide, USP, 10 oz. lots, bots** oz .85 - —
**Sebacic acid, CP bgs., c.l., works, bgs., t.c.l., works** lb .95 - —
**Purified, bgs c.l., works** lb .69½- —
**bgs. l.c.l., works** lb .71½- —
**Seidlitz mixture (fib dms, 5,000-lb. lots** lb .65½- —
**fib dms, smaller lots** lb .67½- —
**Selenium, powd., 99½%, dms., dlvd.** lb .30½- —
**Senega root, bls** lb .31 - .32
**Senna leaves, Alexandria, whole and half, bls** lb 6.50 - —
**siftings** lb 2.40 - —
**Tinnevelly, No. 1, bls.** lb .20 - .22
**No. 2, bls** lb .16 - —
**No. 3, bls** lb .26 - .28
**pods, bls** lb .14 - —
**powd, bbls., bxs** lb .28 - —
**Serpentaria root, bls** lb .17 - —
**Sesame oil, USP, dms., l.c.l.** lb 7.00 - 7.50
lb .37 - .38

Sesame seed, Colombian, bgs....lb. .15½- —
Lebanese, hulled, bgs.....lb. .19 • —
Nicaraguan, hulled, bgs.....lb. .21 • —
nat., bgs. .....lb. .15 • —
Salvadorian, Nat., bgs.....lb. .16 • —

Shellac, bleached bonedry, bgs., 1,500-lb. lots..lb. .47 • —
dms., l.c.l., works .....lb. .22 • .20½
bbls., 1,500-lb. lots.....lb. .46 • —
kgs., 1,500-lb. lots.....lb. .47 • —
Bonedry shellacs prices for less than 1,500-lb. lots 1c. per lb. higher for all packages.

Shellac, bleached, refd. ogs., 1,500-lb. lots lb. .56 • —
bbls., 1,500-lb. lots .....lb. .57 • —
kgs., 1,500-lb. lots .....lb. .58 • —

Shellac, orange, lemon No. 1, bgs., 10-bg. lots lb. .37 • .39
lemon No. 2, bgs., 10-bg. lots, lb. .34 • .37
superfine, bgs., 10-bg. lots..lb. .32 .34
Shellac in 1 to 10-bg. lots 1c. per lb. more.

Shingle stain oil, tar distillate, dms., c.l., works gal. .37 • —
dms., l.c.l., works .....gal. .48 • —
tanks, works .....gal. .25 • —

Sienna pigment, burnt, paper bgs., c.l., works lb. .06½- .18½
paper bgs., l.c.l., works lb. .06¾- .17¾
Raw, paper bgs., c.l., works lb. .06¾- .16¾
paper bgs., l.c.l., works lb. .07 • .17

Silica, amorph., dry-grd., 325 mesh, bgs., c.l., works ton.25.00 • —
bgs. l.c.l. works, ex whse. ton.45.00 -55.00

Silica, hard-quartz, 99½%, 325 mesh, bgs., c.l., works ton.20.00 • —
bgs., l.c.l., works ton.25.00 • —
99½%, 140 mesh, bgs., c.l., works ton.15.00 • —
bgs., l.c.l. works ton.20.00 • —

Silicon tetrachloride, tech., dms., c.l., works lb. .20 • —
tanks, works .....lb. .15 • —

Silver bullion, ingots, cs. Troy oz. .91⅛- —

Silver cyanide, bots., 1,000-oz. lots, oz. .94¾- —
bots., 500-oz. lots .....oz. .95¼- —
bots., 100-oz. lots .....oz. .96¼- —

Silver nitrate, CP, cryst., bots., 1,000 to 4,000 oz., f.o.b. works oz. .67¼- —
bots. 250-500 oz., same basis. oz. 67¾- —
USP granular silver nitrate 4c. per oz. higher.

Silver proteinate, mild, USP, 16-oz. bots oz. 1.46 • —

Snakeroot oil, Canada, crs .....lb.40.00 -43.00

Soapbark, crushed, bls. .....lb. .40 • —
Powd., bls. .....lb. .50 • —
Whole, bls. .....lb. .30 • —

Soda ash, dense, 58%, paper bgs., c.l., works 100 lbs. 1.90 • —
paper bgs., l.c.l., stock pts., 100 lbs. 3.00 • 4.77
bulk, c.l., works 100 lbs. 1.60 • —
Light, 58%, paper bgs., c.l., works 100 lbs. 1.85 • —
paper bgs. l.c.l., stock pts. bulk, c.l., works.... 100 lbs. 1.55 • —
100 lbs. 3.95 • 4.72

Soda, caustic, flake, 76%, dms., c.l., works, frt. equald 100 lbs. 5.20 • —
liq., 50% sellers tanks, works, dry basis 100 lbs. 2.90 • —
50%, rayon type, sellers' tanks, works, dry basis 100 lbs. 2.90 • 3.00
Liq. 73%, sellers' tanks, works, dry basis. 100 lbs. 3.00 • —
liq., 73%, rayon type, sellers' tanks, works, dry basis lb. 3.00 • 3.10
solid, 76%, dms., c.l., works, 100 lbs. 4.80 • —

Soda, sal, conc., bgs., c.l., works. 100 lbs. 2.50 • —
bgs. smaller lots, works 100 lbs. 2.80 • —

Sodium acetate, annyd., bgs., c.l., dlvd. E lb. .14½- —
bgs., l.c.l., same basis.... lb. .16½- —
NF, 60%, gran., dms., c.l., works, lb. .15½- —
dms., l.c.l., works..... lb. .17½- —

Sodium alginate, NF, white powd., dom., 300 lbs. or more lb. 1.02 • —

Sodium p-aminosalicylate, dms., 100-lb. lots or more, frt. adjusted lb. 1.90 • —

Sodium antimoniate, bgs., c.l., dlvd. E lb. .27½- —
bgs., l.c.l., dlvd. E lb. .29 • —

Sodium arsenate, 60% arsenic pentoxide, 200 lb. dm., less than ton lots, f.o.b. works lb. .24 • —
ton lots or more, same basis. lb. .23½- —

Sodium arsenite, 94% soluble pink powder, 75% arsenious oxide, dealers, 100-lb. dms., ton lots or more, f.o.b., works lb. .18¼- —
1,600-1,900 dms., same basis ... lb. .19 • —
100-500 dms., same basis .... lb. .20 • —

Sodium ascorbate, dms., 100-kilos., dms., f.o.b. works kilo. 5.75 • —
less than 100-kilos .....kilo. 6.00 • —

Sodium benzoate, tech., dms., c.l., t.l., frt. alld lb. .35 • —
dms., l.c.l., same basis .... lb. .39 • —
USP, 100-lb. dms., ton lots, same basis lb. .43 • —
100-lb. dms., 1,000-lb. lots, same basis. lb. .45 • —

Sodium bicarbonate, USP, gran., bgs., c.l. works 100 lbs. 2.95 • —
bgs., l.c.l., works .... 100 lbs. 3.85 • —
USP, powd., bgs., c.l., works, 100 lbs. 2.55 • —
bgs., l.c.l., works 100 lbs. 3.45 • —

Sodium bichromate, gran., ogs., c.l., t.l., works lb. .13 • —
bgs., l.c.l., works..... lb. .13½- .14¼
Sodium bichromate in dms. ¾c. per lb. higher

Sodium bifluoride, fib, dms., c.l., works, frt. equald. lb. .19½- —
fib, dms., l.c.l., same basis.... lb. .2025- —

Sodium bisulfate, bulk, c.l., works, 100 lbs. 2.00 • —
dms., c.l., frt. equald ..... 100 lbs. 3.00 • 3.60
dms., l.c.l., frt. equald .... 100 lbs. 3.50 • 4.10

Sodium bisulfite, annyd., bgs., c.l., works 100 lbs. 5.00 • —
bgs., l.c.l., works .....100 lbs. 5.45 • —
Soln., 35° bbls., c.l., works.100 lbs. 1.70 • —
bbls. l.c.l., works ....100 lbs. 2.20 • —

Sodium borate (see Borax)

Sodium borohydride, powd., dms., c.l., works..lb. 8.00 • —
dms., l.c.l., works.....lb.11.75 -14.00
stabilized water soln., 12% NaBH, 100% basis, tanks, works....lb. 7.50 • —
dms., same basis .....lb.11.50 -13.00
Pelletized sodium borohydride $1 per lb. higher in 1,000-lb. lots.

Sodium bromide, USP, gran., dms., works lb. .40 • —

Sodium carbonate, cryst., monohydrated (see Soda, sal).

Sodium carbonate, monohydrated, bgs., l.c.l., works ....100 lbs. 3.50 • —
bgs., c.l., works 100 lbs. 3.10 • —

Sodium carboxymethyl cellulose (see CMC).

Sodium chlorate, cryst., 350-lb. dms., c.l., works..lb. .09 • —
dms., l.c.l., works.....lb. .09½- .10½
Sodium chlorate in 100-lb. dms., only, ¼c. per lb. higher.

Sodium chloride, tech. (see Salt).

Sodium chloride, USP, gran., bgs. lb. .08 • —

Sodium chlorite, tech., dms., c.l., works..lb. .58 • —
dms., 20-dm. lots or more, works. lb. .66 • —
dms., smaller lots, works lb. .70 • .73

Sodium chloroacetate, tech., dms., c.l., works lb. .27 • —
dms., l.c.l., works .....lb. .28 • —

Sodium chromate, anhyd., fib, dms., c.l., t.l., works lb. .14¾- —
fib, dms., l.c.l., works lb. .15¼- .16½
Tetrahydrate, bgs., c.l., t.l., works. lb. .1015- —
bgs., l.c.l. .....lb. .1065- .1190

Sodium citrate, anhyd., 200-lb. dm., f.o.b. works E lb. .52 • —
NF VIII, gran, bgs., c.l., same basis lb. .26 • —
USP XIV, gran., bgs., c.l., same basis lb. .29 • —

Sodium citrate, USP, powd, prices ½c. higher.

Sodium cyanate, dms., 1,000-lb. lots, works lb. .85 • —
dms., smaller lots, works lb. .90 • 1.10

Sodium cyanide, briquettes or gran., 97 percent min., dms., divd., E. of Rockies, 20,000-lb lots..lb. .183 • —
dms., same basis, 5,000 to 19,999-lb. lots..lb. .203 • —
dms., same basis, 2,000 to 4,900-lb. lots..lb. .208 • —
dms., same basis, 1,999-lb. lots and under..lb. .218 • —

Sodium cyclamate, 100-lb. dm., f.o.b. works..lb. 1.95 • —

Sodium diacetate, anhyd., 38-41% acetic acid, dms., c.l., works..lb. .18 • —
250-lb. dms., l.c.l., works.....lb. 18¾- —
Tech., 33-35% acetic acid, dms., l.c.l., works lb. .15 • —
250-lb. dms., l.c.l., works.....lb. .15¾- —

Sodium dimethyl dithiocarbamate, 40% soln., dms., c.l., t.l., frt. alld., 100% basis lb. .42 • —
dms., l.c.l., t.t.l., same basis..lb. .47 • .52
tanks, same basis .....lb. .38 • —

Sodium ferrocyanide, bgs., 10-ton lots..lb. .13½- —
bgs. smaller lots .....lb. .14¾- —

Sodium fluoride, white, 97%, fib, dms., c.l., works, frt. equald..lb. .1390- —
fib, dms., l.c.l., works, frt. equald..lb. .1465- —

Sodium formate, bgs., c.l., works, 100 lbs. 7.05 • —
bgs., l.c.l., ex whse.....100 lbs. 8.65 • —

Sodium gentisate, 100-lb. fib. dms.lb. 5.50 • —

Sodium gluconate, refd., 250-lb. dm., f.o.b. works E lb. .84 • —
Tech., bgs., c.l., t.l., same basis lb. .34 • —

Sodium hydride, 50% soln. in oil, dms., works lb. 1.25 • 2.50
25% soln. in oil, dms., 50 lbs. or less, f.o.b. shipping point. lb. 2.20 • —
dms., 50-99 lbs. same basis lb. 1.77 • —
dms., 100-999 lbs., same basis lb. 1.20 • —

Sodium hydride, dms., 1,000 lbs. or more, same basis.....lb. .95 • —

Sodium hydrosulfide (see Sodium sulfhydrate).

Sodium hydrosulfite, dms. c.l., frt. alld. lb. 23½ —
dms., l.c.l., frt. alld. ..... lb. 25¼- —

Sodium hydroxide, NF, pellets, 100-lb. dms., 1 to 100-dm. lots, lb .23½ .28

Sodium hydroxide, tech. (see Soda, caustic).

Sodium hypophosphite, NF, dms. 1,000-lb. lots..lb. .99 • —

Sodium hyposulfite (see Sodium thiosulfate).

Sodium iodide, USP, 300-lb. dms., f.o.b. works lb. 2.13 • —

Sodium lauryl sulfate, dms., c.l., dlvd. lb. .20½- —
dms., l.t.l., dlvd. .....lb. .21½- —
tanks, dlvd. .....lb. .19½- —

Sodium lignin sulfonate, bgs., c.l., works..100 lbs. 4.25 • —
l.c.l., bgs., works .....100 lbs. 4.75 - 5.25

Sodium metabisulfite (see Sodium bisulfite).

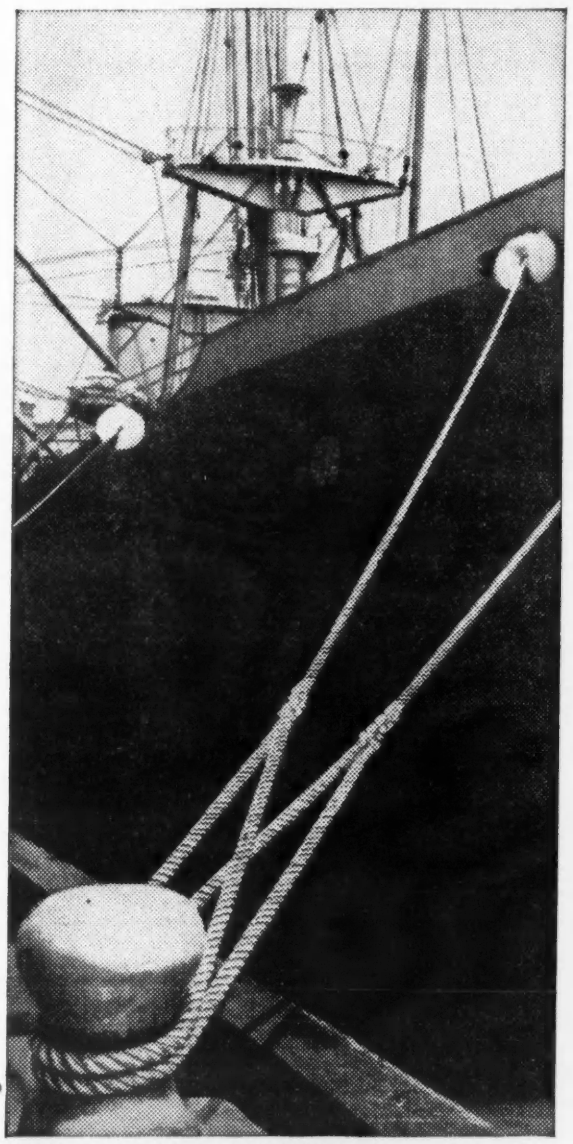
Sodium metaborate, octahydrate, gran., bgs., c.l., works ton.210.00 • —
bgs., ton lots, ex whse 100 lbs. 8.30 • —
bags, smaller lots, ex whse, 100 lbs. 9.61 -11.61

Tetrahydrate, bgs., c.l., works. ton.210.00 —
bgs., ton lots, ex whse .100 lbs.14.83 • —
bgs., smaller lots, ex whse. 100 lbs.16.06 -18.06

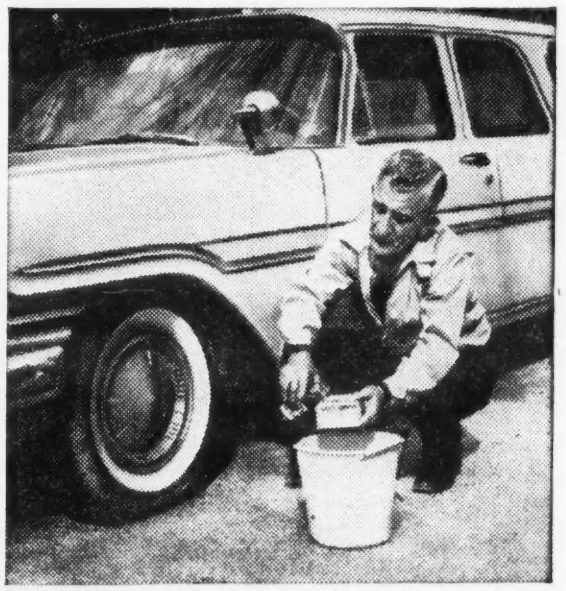
Sodium, metallic, bricks, c.l., works. lb. .21 • —

Fused, 18,000-lb. lots or more, works..lb. .19½- —
tanks, works .....lb. .17 • —


# HOW *HERCULES* HELPS...



**LOWER THE BOOM ON ROPE COSTS**—Strong, lightweight synthetic rope made with Pro-fax® polypropylene is now available in a variety of constructions, tailored to meet the specific requirements of every class of marine work. Easy to handle, and highly resistant to moisture and mildew, their long service life results in a much lower cost per ship-operating day than manila.



**WHITEWALLS STAY WHITE**—Full-strength pine cleaner plus a good rinse mean Sunday-best whitewall tires every day. For many household uses, pine oil in larger quantities makes a triple-duty product—cleans, deodorizes, and disinfects. More than 850 manufacturers use Yarmor® pine oil in products for home and industry.

**MAKE BETTER BREAD**—Advances in modern chemistry help make "the staff of life" an even sturdier product. Vicrum®, Hercules vital wheat gluten, is now used in many leading specialty breads and baked goods to give better quality, improved grain and texture, longer life.

HERCULES

*HERCULES POWDER COMPANY*
INCORPORATED
*Hercules Tower, 910 Market Street, Wilmington 99, Delaware*

CHEMICAL MATERIALS FOR INDUSTRY

661-7

Sodium metalinate, bbls., frt. alld, lb. .62 - —

Sodium metaphosphate, bgs., c.l., f.o.b shipping pt 100 lbs.11.10 - —
bgs., l.c.l., same basis 100 lbs.11.85 - —
dms., c.l., same basis 100 lbs.11.70 - —
dms., l.c.l., same basis 100 lbs.12.45 - —

Sodium metasilicate, anhyd., bgs., c.l., works 100 lbs 5.70 - —
bgs., 6,000-19,900 lb. lots, works 100 lbs 6.05 - —
dms., c.l., works 100 lbs 6.20 - —
dms. l.c.l., works 100 lbs 6.55 - —
Pentahydrate, bgs., c.l., works. 100 lbs. 4.45 - —
bgs., l.c.l., works 100 lbs 4.80 6.75
dms., l.c.l., works 100 lbs 4.95 - —
dms., l.c.l., works 100 lbs 5.30 7.25

Sodium molybdate, anhyd., dms., works, frt. equald lb. 1.02 - 1.21
Cryst., dms., works, frt. alld lb. .84 - .86

Sodium monoglutamate (see Monosodium glutamate)

Sodium monohydrate (see Sodium carbonate monohydrated)

Sodium naphthionate, bbls. lb. .77 - —

Sodium nitrate, dom., crude, bgs., c.l., works ton 48.00 - —
bulk, c.l., works ton 44.00 - —
Imp., crude, 100-lb. bgs., c.l., Atl., Gulf, Pac., whse ton.48.00 - —
bulk, c.l., same basis ton.44.00 - —

Sodium nitrite, USP, bbls., c.l., works, frt. equald 100 lbs. 9.40 - —
bbls., l.c.l., same basis 100 lbs.11.40 - —

Sodium orthosilicate, conc., dms., c.l., works 100 lbs. 6.70 - —
dms., l.c.l., works 100 lbs. 7.05 - 7.65
Hydrated, flake, bbls., c.l., works. 100 lbs. 5.65 - —
bbls., l.c.l., works 100 lbs. 7.60 - 7.90

Sodium oxalate, 88%, bgs., works. 100 lbs.12.35 - —
99%, bgs., works 100 lbs.15.40 - —

Sodium para-aminobenzoate (see Sodium p-aminobenzoate).

Sodium para-aminosalicylate (see Sodium p-aminosalicylate).

Sodium pentachlorophenate, briquets, dms., c.l., works, frt. equald lb. .26 - —
dms., l.c.l., same basis lb. .27½- .34
Pellets, dms., c.l., same basis lb. .26 - —
dms., c.l., same basis lb. .27½- .34
Powd., dms., c.l., same basis lb. .25 - —
dms. l.c.l., same basis lb. .26½- .33

Sodium pentaharbital, USP, dms., 100 lbs. or more lb. 6.00 - —

Sodium perborate NF, tech., bgs., c.l., works lb. .18½- —
bgs. l.c.l. works lb. .19 .21

Sodium peroxide, dms., c.l., t.l., dlvd E. of Miss lb. .21½- —
dms., l.c.l., same basis lb. .22 - .22½

Sodium phenoharbital, USP, 100 lb. dms lb. 3.75 - —

Sodium phenosulfonate, USP, IX, gran., dms lb. .52 - .53
NF, powd., dms. lb. .55 - .56

Sodium phosphate, dibasic, anhyd., bgs., c.l., frt. equald 100 lbs. 8.10 - —
bgs., l.c.l., same basis 100 lbs. 8.50 - 9.55

Dibasic, cryst., bgs., c.l., t.l., frt. equald... 100 lbs. 4.75 - —
bgs., l.c.l., frt. equald 100 lbs. 5.15 - 5.90

Duohydrate, bgs., c.l., frt. equald. 100 lbs. 7.75 - —
bgs., l.c.l., same basis 100 lbs. 8.25 - —

Monobasic, anhyd bgs., c.l., frt. equald 100 lbs. 9.15 - —
bgs., l.c.l., same basis 100 lbs. 9.55 -10.15

Tribasic, anhyd. bgs. c.l., frt. equald 100 lbs. 9.15 - —
bgs., l.c.l., frt. equald 100 lbs. 9.60 -10.20

Sodium phosphate in dms. 60c. to 80c. higher than bgs

Sodium phosphate, USP, dried, powd., bgs., dms., works lb. .19 - .20½

Sodium picramate, tech., paste, dms., f.o.b. works, frt. equald lb. .90 - —

Sodium propionate, any quantity, dms. dlvd E of Rockies. lb. .34½- —

Prices W of Rockies 3c per lb more.

Sodium prussiate, yellow (see Sodium ferrocyanide)

Sodium pyrophosphate, acid, bgs., c.l., works, frt equald. 100 lbs.11.25 - —
bgs., l.c.l., same basis 100 lbs.12.00 -12.50

Ferric, dms., c.l., t.l., works... lb. .36 - —
dms. l.c.l. works lb. .37 - .39

Tetrabasic, anhyd., bgs., c.l., works, frt. equald 100 lbs. 7.38 - —
bgs., l.c.l., same basis 100 lbs. 8.13 - —
bulk, hopper cars, same basis. 100 lbs. 6.83 - —

Sodium salicylate, USP, dms., 1,000-lbs. or more lb. .78½- —
dms., less than 1,000 lbs., dms.lb. .81½- —

Sodium sesquicarbonate, bgs., c.l., works. 100 lbs. 2.35 - —
l.c.l., dlvd, zone 1 100 lbs. 4.10 - 4.35
dlvd, zone 2 100 lbs. 4.35 - 4.60
dlvd, zone 3 100 lbs. 4.75 - 4.90
dlvd zone 4 100 lbs. 5.35 - 5.60

Sales zones are (1) Atl. states E. of Miss., R and N of south bound of Ky. and Va., Ala., La., and Miss. south of 31°; Tex. E. of 100°; S of 31° Fla.; also Me., N. H. and Vt. in which there are special county zones; Davenport, Ia., and St. Louis; (2) Ark. E. of 98° Ga.; Iowa (except Davenport) Minn., Mo. (except St. Louis) Neb. E. of 98° N. C., S. C., Tenn. and Tex. N. of 31° and E. of 100° (except Wichita Falls); also Ala., La. and Miss. No of 31°; (3) Ark. W of 96°, Kan., Neb. W. of 98° N. D., Okla., S. D., Tex., W of 100° (including Wichita Falls, excluding El Paso); (4) Ariz., Colo., Idaho, Mont., Nev., N. M., Utah, Wyo and El Paso, Tex.

Sodium sesquisilicate, anhyd., bgs., c.l., t.l., works 100 lbs. 5.70 - —
dms c.l. t.l., works 100 lbs 6.20 - —
hydrated, bgs., c.l., works. 100 lbs. 5.00 - —
bgs., 6,000-19,900 lb. lots, works 100 lbs. 5.35 - —
dms., c.l., works 100 lbs. 5.50 - —
dms. 6,000-19,900 lb lots, works. 100 lbs. 5.85 - —

Sodium silicate, liq., 40° Be., 1:3.2, turbid, dms., c.l., works. 100 lbs. 1.65 - —
dms., l.c.l., works 100 lbs. 1.90 2.40
tanks, works 100 lbs. 1.20 —
47° Be 1:2.9.9, turbid, dms., c.l., works 100 lbs. 2.25 - —
dms., l.c.l., works 100 lbs. 2.60 - 3.45
tanks, works 100 lbs. 1.90 —
52° Be 1:2.4, turbid, dms., c.l., works 100 lbs. 2.65 - —
dms., l.c.l., works 100 lbs. 3.00 3.50
tanks, works 100 lbs. 2.30 - —
Solid, 1:3.2, bgs. works ton.67.50 - —

Sodium silicofluoride, bgs., c.l., works lb. .065 - —
bgs., l.c.l., works lb. 725- —

Sodium silicofluoride in dms. 0.4c. per lb. higher

Sodium stannate, dms., works, frt. alld. E lb. .736 - .795

Sodium sulfa drugs (see Sulfa name).

Sodium sulfanilate, bbls., works lb. .22 - —

Sodium sulfate, NF VII, dried, powd., dms lb. .22½- —
Tech., anhyd. bgs., c.l., dlvd E. ton.56.00 - —
Tech., detergent, rayon grade, bgs., c.l., works ton.38.00 - —
bulk, c.l., works ton.34.00 - —
USP, cryst., fib dms. lb .17½- .18

Sodium sulfhydrate, flake, 70-72%, dms., c.l., works, frt. equald lb. .07¼- —
dms., l.c.l., same basis lb. .08¼- —
Liq. 40-44% tanks, works, 100% basis ton.130.00 - —

Sodium sulfide, flake, dms., c.l., works, E., frt. equald lb. .06 - —
dms., l.c.l., same basis lb. .07 - —
Fused, bbls., c.l., works, E., frt. equald lb. .05½- —
bbls., l.c.l., same basis lb. .06½- —

Sodium sulfite, anhyd., tech., bgs., c.l., works 100 lbs. 3.50 - —
bgs., t.l., same basis 100 lbs 4.00 - —
Powd., bgs., c.l., works 100 lbs. 7.55 - —
bgs. l.c.l., same basis 100 lbs. 7.95 —

Sodium sulfocyanide, CP (see Sodium thiocyanate).

Sodium tetraborate (see Borax).

Sodium tetrasulfide, liq., 40%, dms., c.l., works frt. equald lb. .04½- —
dms., l.c.l. same basis lb. .05½- —

Sodium thiocyanate, purified, cryst., 250-lb dms lb. .90 - —
Tech. anhyd., dms., 1 ton lots or more, works lb. .367 - —
dms., less than ton lots, works lb. .387 - —

Sodium thiosulfate NF, cryst. bbls. lb. .13½- —
Tech. anhyd. 100-lb bgs. c.l., t.l., frt. equald 100 lbs. 7.75 - —
100-lb bgs. l.c.l., t.t.l., frt. equald 100 lbs. 8.15 - —
photograde, 64-lb. bgs., c.l., t.l., frt. equald lb. .0775- —
64-lb bgs. l.c.l. t.t.l., frt. equald lb. .0815- —
Tech., pentahydrate, photo grade, 100-lb. bgs., c.l., t.l., frt. equald 100 lbs. 4.95 - —
100-lb. bgs., l.c.l., t.t.l., frt. equald 100 lbs. 5.20 - —

Sodium titanate, ctns., c.l., works. lb. .14¼- —
ctns., 5-ton lots, works lb. .14½- —
ctns., 1-ton lots or less, works lb. .14¾- —

Sodium trichloroacetate, 90%, 100-lb. dms., c.l., frt. alld. E. lb. .35 - —
50-lb. dms., c.l., frt. alld. E lb. .35½- —
10-lb ens., c.l., frt. alld E lb. .42 —

Prices on Sodium trichloroacetate W. of the Rockies are 1¾c. per pound higher.

Sodium tripolyphosphate, bgs., c.l., works, frt. equald 100 lbs. 7.73 - —
bgs., l.c.l., same basis 100 lbs. 8.48 - —
bulk, hopper cars, same basis. 100 lbs. 7.18 - —

Sodium tungstate, tech., kgs., dlvd. E lb. 1.32 - —

Sodium-ammonium phosphate, purif., cryst., dms., works lb. .52 - —

Sodium-carboxymethyl cellulose (see CMC).

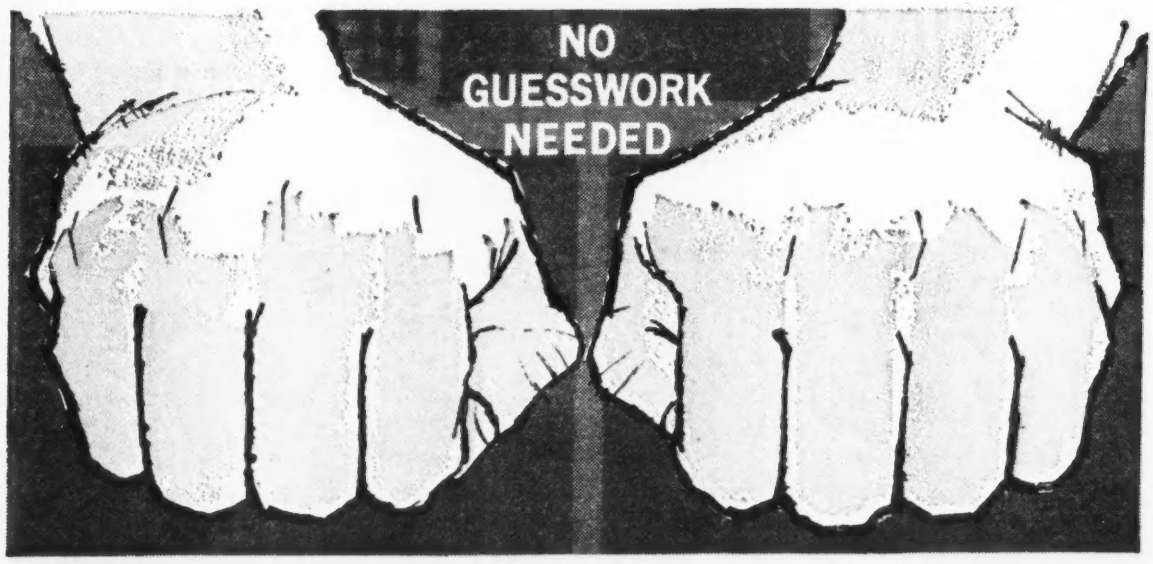
Sodium-cinchophen (see Cinchophen-sodium).

Sodium formaldehyde sulfoxylate, dms., t.l., dlvd lb. .22½- —
dms., l.t.l., same basis lb. .23 - —

Sodium-zirconyl sulfate, fib. dms., 1,000-lb. lots or more works lb. .28 - —
fib. dms., smaller lots, same basis lb. .30 - —

Solvent naphtha, coaltar, high-flash, tanks, frt equald gal. .30 - .35½
Petroleum, straight, aromatic, 310°-360F. b.r., 14°-16° C. m.a.p., tankcars, New Jersey and New York gal. .29 - —
Houston, Texas gal. .29 - —
355°-420°F. b.r., 17°-18°C. m.a.p., tankcars, New Jersey and New York. gal. .30 - —
Houston, Texas gal. .30 - —
Partial aromatic, 211°-265°F b.r., 31°C m.a.p., tankcars, New Jersey and New York gal. .235 - —
286°-340°F. b.r., 22°C. m.a.p., tankcars, New Jersey and New York gal. .275 - —
319°-380°F. b.r., 27° C. m.a.p., tankcars, New Jersey and New York gal. .27 - —
322°-395°F b.r., 28°C m.a.p., tankcars, New Jersey and New York gal. .28 - —

Sorbitan monostearate fib dms., 20,000-lb lots, works lb. .33½- —
10,000 to 20,000-lb. lots, works. lb. .35½- —
fib. dms., smaller lots, works lb. .38½- .40½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DRYMET®

Most highly concentrated metasilicate . . . a source of controlled alkalinity. DRYMET puts extra value into your cleaning compounds. Blends easily with other alkalies, soaps, synthetics.

Pentahydrate Sodium Metasilicate

CRYSTAMET®

Exceptionally pure hydrated metasilicate. Stable crystal structure and uniform spherical granules make CRYSTAMET ideal for compounding free-flowing mixtures. Available in three screen ranges.

Anhydrous Sodium Orthosilicate

DRYORTH®

Ready-to-use, power-packed, highest pH detergent silicate. DRYORTH is an excellent heavy duty metal cleaner and laundry detergent. Other important applications.

Anhydrous Sodium Sesquisilicate

DRYSEQ®

A medium pH alkaline salt for fast, dependable work at low cost to the user. DRYSEQ has excellent penetrating and wetting-out properties with long active life.

Cowles CHEMICAL COMPANY
CLEVELAND 20, OHIO

Stocked in principal cities and available in mixed carloads and truckloads, Cowles detergent silicates give you complete versatility in compounding. Send letterhead request today for more information.

Sorbitan tristearate, flb. dms., 20,000-lb. lots, works lb. .34 - —
flb. dms., 10,000 to 20,000-lb. lots, works lb. .36 - —
flb. dms., smaller lots, works lb. .39 - .41
Sorbitol, NF, reg., 70% aqueous, dms., c.l., works lb. .18 - —
dms., l.c.l., works lb. .19 - —
tanks, works lb. .16¼- —
cryst., resin grade, pellets, dms., c.l., works lb. .23 - —
dms., 1 to 5-ton lots, works lb. .25 .26
powd., dms., c.l., works lb. .38½- —
dms., 10,000 to 20,000 lb. lots, works lb. .40½- —
Sorbitol, soln., comi., aqueous, dms., c.l., works lb. .26 - —
dms., l.c.l., works lb. .27 - —
tanks, works lb. .23¼- —
Soya protein, chemically isolated, old process, bgs., c.l., works. lb. .23 - —
bgs., l.c.l., works lb. .23¼- .23½
Chemically isolated, new process, bgs., c.l., works lb. .20 - —
bgs., l.c.l., works lb. .20¼- .29½
Soybean meal, 44%, bulk, unrestricted, Decatur ton 64.00 - —
Soybean oil, crude, tanks, Decatur, lb. .10½- —
Foots, soapstock acid 95%, tanks, New York lb. .0675- —
Alkali, refd., dms. lb. .1480- .1503
tanks lb. .1280- —
Clarified, dms. lb. .1430- .1455
tanks lb. .1230- —
Refd., salad, dms. lb. .1475- .1500
tanks lb. .1275- —
Soybean oil acids, dbl. dist., dms., lb. .17¼- .18½
tanks lb. .14¾- —
S. D., dms. lb. .16 - .18½
tanks lb. .13½- —
Sparteine sulfate, cns., 100 oz. or more oz. .80 - —
Spearmint leaves, dom., bls lb. 75 - —
Spearmint oil, NF, dms lb. 3.00 - 4.50
Sperm oil, bleached winter, 45°, dms. lb. .1750- .1850
tanks lb. .1550- —
Nat., winter, 45°, dms. lb. .1650- .1750
tanks lb. .1450- —
Spermaceti wax, blocks, cs. lb. .32 - .33
cakes, cs. lb. .33 .34
Spruce oil, cns., dms. lb. 2.10 - 3.55
Squill, white, bls. lb. .16 - .18
Powd., bbls., bxs. lb. .17 - .20
St. John's bread, edible, bls. lb. .17 - —
Stannic chloride, anhyd., dms., works lb. .906 - .928
Stannous chloride, anhyd., dms. lb. 1.129 - 1.384
Stannous chloride, hyd., crystal, 800 lbs. or more lb. .96 - —
Stannous oxide, dms., dlvd. lb. 1.682 - 1.812
Stannous sulfate, works lb. 1.217 - 1.257
Star root (see Helonias root).
Stargrass root (see Aletris root.)
Staveacre seed, bgs lb. .60 .61
Stearic acid, bbl. pressed, bgs. lb. .16¾- .19¼
Single-pressed, bgs. lb. .16¼- .18¾
Triple-pressed, bgs. lb. .18½- .21
Stoddard solvent, petroleum, tanks, east coast, New Jersey, New York gal. .18 - —
tanks, Houston gal. .1475- —
tanks, group 3 gal. .12875- —
Stramonium leaves, bgs. lb. .16½- .18
Streptomycin sulfate, bulk gram. .028 - .03
Strontium bromide, NF, cryst., gran., 150-lb. dm., frt. equald lb. 1.00 - —
Strontium carbonate, pure, dms., 5-ton lots or more, works lb. .35 - —
dms., 1-ton lots, works lb. .37 - —
Tech., dms., works lb. .19 - —
Strontium chromate, fib dms., dlvd. lb. .48 - —
Strontium iodide, jars, 25-lb. lots lb. 3.57 - —
Strontium nitrate, bgs., c.l., works, 100 lbs. 11.00 - —
bgs., l.c.l., works 100 lbs. 12.00 - —
Strontium salicylate, NF, dms lb. 1.88 - —
Strontium sulfate, air floated, 90%, 325 mesh, bgs., works, ton 56.70 -66.15
Strophanthin G (see Quabain, USP)
Strophanthin K, bots. oz. 25.00 -35.50
Strophanthus seed, Kombi, biologically tested, bgs lb. 2.50 - 3.00
Styrax gum USP, cs lb. 4.50 5.50
Styrene monomer, polymer grade, 99.6%, dms., c.l., dlvd lb. .17 - —
dms., l.c.l., same basis lb. .19 - —
tanks, frt. equald. lb. .132 - —
Tech., 99.2%, dms., c.l., dlvd. lb. .15 - —
dms., l.c.l., same basis lb. .17 - —
tanks, frt. equald lb. .11 - —
Above prices are escalated for each calendar quarter on the basis of cost of benzene in the range of 31c. to 34c. a gallon and petroleum refining labor.
Styrolyl acetate, bots lb. 1.03 1.10
Succinic acid, purif., cryst., dms., c.l., frt. alld lb. .62 - —
dms., l.t.l., same basis lb. .63 - .75
Succinic anhydride, dms., c.l., t.l., dlvd lb. .51 - —
dms., l.c.l., same basis lb. .52 - —
Sucrose, refd. white, bgs., refy lb. .0930- —
Sucrose acetate, isobutyrate, 90%, dms. t.l., dlvd lb. .33½- —
dms., l.t.l., same basis lb. .35 - —
tanks, same basis lb. .31 - —
100%, t.l., dms., dlvd. lb. .35½- —
l.t.l., dms., same basis lb. .37 - —
Sucrose octa-acetate, denaturing grade, 100-200-lb. lots, bgs. l.c.l., works lb. 1.00 - —
Sugar (see Sucrose)
Sugar cane wax, dom., refd., slabs, 80-lb. ctns., works lb. .60 - .65
80-lb. ctns., spot lb. .65 .75
Sulfabenzamide, dms. kilo 8.80 9.90
Sulfabenzamide-sodium, dms kilo 9.00 -10.10
Sulfacetamide, USP, fib dms kilo. 6.61 6.83
Sulfacetamide-sodium, USP, fib. dms kilo 8.15 9.25
Sulfadiazine, USP, microcrystals, dms kilo. 23.35 -24.45
USP, powd., dms. kilo. 22.60 -23.70
Sulfadiazine-sodium, USP, dms kilo. 24.80 -25.90
Sulfaguanidine, NF X dms kilo 5.50 6.60
Sulfamerazine, USP, microcrystals, dms kilo. 23.50 - —
Sulfamerazine-sodium, USP, powd., dms kilo. 24.80 25.90
Sulfamethazine, USP XV, microcrystals, dms kilo. 19.65 -20.75
USP XV powd., dms kilo. 18.75 -19.85
Sulfamic acid, cryst., dms., c.l., t.l., works 100 lbs. 16.00 - —
dms., l.c.l., t.t.l., works 100 lbs. 17.50 18.50
Gran., dms., c.l., t.l., works, 100 lbs. 14.75 - —
dms., l.c.l., t.t.l. works 100 lbs. 16.25 -17.25
Sulfanilamide, NF reg., 1,000 lb., fib. dms., frt. equald lb. 1.75 - —
NF, reg., smaller lots, fib. dms., frt. equald lb. 1.80 - —
Sulfanilamide quinoxaline, veterinary, dms kilo. 16.28 - —
Sulfanilic acid, tech., dms., c.l., frt. alld lb. .21 - —
dms., l.c.l., frt alld lb. .23 - —
Sulfapyridine, USP XV, powd., bots., tins kilo. 15.45 -16.55
Sulfapyridine-sodium, monohydrate, dms kilo. 16.35 -17.65
Sulfathiazole, NF X, microcrystals, dms kilo. 6.25 - 6.90
NF X, powd., dms. kilo. 5.50 - 6.15
Sulfathiazole-sodium, NF X, dms., 1,000-lb. lots or more lb. 2.35 - —
Sulfur, coml., flour, bgs., mines, 100 lbs. 2.35 - —
bbls., mines 100 lbs. 3.30 - —
lump, bgs., mines 100 lbs. 2.25 - —
bbls., mines 100 lbs. 2.80 - —
Sulfur, crude, dom., bright, bulk, f.o.b. cars, mines long-ton 23.50 - —
export, f.o.b. vessels, Gulf ports, long-ton 25.00 - —
US and Canada, f.o.b. vessels Gulf ports long-ton 25.00 - —
Domestic dark sulfur prices are $1 per long-ton lower.
Sulfur, crude, imp., Mexican, bulk, filtered, f.o.b., vessel, Coatzacoalcos long-ton 24.00 - —
Mexican dark sulfur price is $1 per long-ton lower.
Sulfur, refd., flowers, NF, bgs., mines 100 lbs. 5.65 - —
bbls., mines 100 lbs. 7.00 - —
flour, light, bgs., mines 100 lbs. 5.25 - —
bbls., mines 100 lbs. 6.25 - —
lump, bgs., mines 100 lbs. 4.95 - —
rolls, bgs., mines 100 lbs. 5.50 - —
bbls., mines 100 lbs. 6.25 - —
salf block, bgs., mines 100 lbs. 4.65 - —
virgin block, bbls., mines 100 lbs. 4.70 - —
Sulfur, rubbermakers, comi., reg., bgs., mines 100 lbs. 2.45 - —
bbls. mines 100 lbs. 3.70 - —
98-100%, pashing through mesh, bgs., mines 100 lbs. 2.55 - —
bbls., mines 100 lbs. 3.80 - —
Sulfur, refd., bgs., mines 100 lbs. 4.90 - —
bbls., mines 100 lbs. 6.05 - —
treated, 2.5% mineral oil, bgs., mines 100 lbs. 2.73 - —
bbls., mines 100 lbs. 4.00 - —
Sulfur dichloride, ret. dms., c.l., works, frt. equald lb. .05½- —
ret. dms., l.c.l., same basis lb. .06¾- —
tanks, same basis lb. .04½- —
Sulfur dioxide, liq., coml., cyls., works, frt. equald lb. .10 - .13
multi-unit cars, works lb. .0535- —
tanks, works lb. .045 - —
refrigeration, cyls., dlvd lb. .33 - —
Sulfur monochloride, 55-gal. non-ret. dms., c.l., frt. equald lb. .05½- —
dms., l.c.l., same basis lb. .06¾- —
tanks, same basis lb. .04½- —
Sulfuric acid, 60° Be, cbys., c.l., works 100 lbs. 2.00 - —
cbys., l.c.l., works 100 lbs. 2.30 - —
tanks, works ton 18.60 - —
66° Be, cbys., c.l., works 100 lbs. 2.25 - —
cbys., l.c.l., works 100 lbs. 2.55 - 3.35
tanks, works ton 22.35 - —
98%, tanks, works, East ton 23.50 - —
99%, tanks, works, East ton 23.70 - —
100%, tanks, works, East ton 23.95 - —
Sulfuric acid, California works, tanks ton 26.45 - —
CP, NF, consumers' cbys., c.l., frt. equald lb. .12¾- —
Sulfuric acid, CP, NF, consumers' cbys., l.c.l., same basis lb. .14¼- .14¾
5-pt. bots., extra, cs., c.l., works, frt. al'd lb. .16¼- —
5-pt. bots., extra, cs., l.c.l., same basis lb. .17¾- .18¾
Sulfuric acid, fuming (oleum), 20%, tanks, works ton 25.00 - —
40%, tanks, works ton 29.00 - —
65%, tanks works ton 39.50 - —
Superphosphate, run-of-pile under 22% a.p.a., pulv., bulk, c.l., Baltimore unit-ton .90 - .93
bulk, c.l., Carteret, N. J. unit-ton .90 - .93
Superphosphate, triple, 48% or more a.p.a., pulv., bulk, c.l. East Tampa, Fla., unit-ton 1.00 - —
bulk, f.o.b. vessel at Fla unit-ton 1.05 - —
Sweet birch oil, USP, northern, cns lb 4.00 9.50
USP, southern, cns lb 2.00 3.05

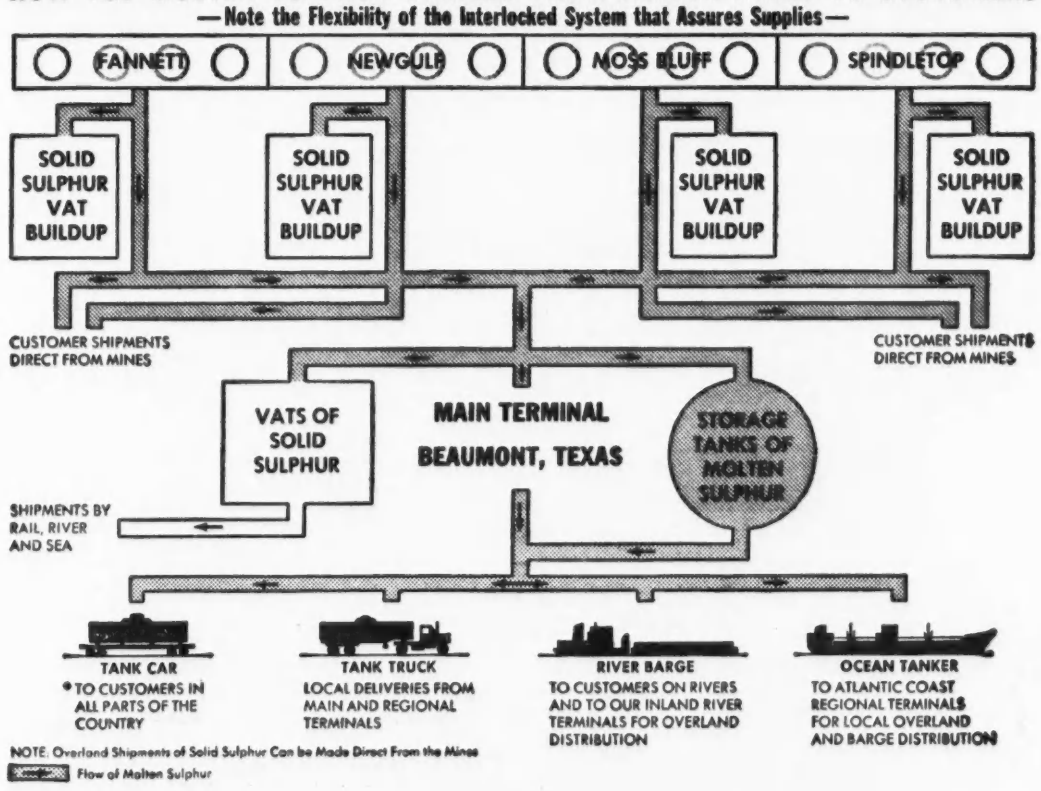
## T

2,4,5-T, dms., c.l., works, frt. equald, lb 1.18 - —
dms., l.c.l., same basis lb 1.25 - —
2,4,5-T, isopropyl ester, dms., c.l., works, frt. equald lb 1.24 - —
dms., l.c.l., works lb 1.29 - —
Talc, dom., fibrous, grd., bgs., c.l., works, New York ton 28.00 - —
bgs., l.c.l. works ton 31.00 -36.00
99.5%, 325 mesh, bgs., c.l., works, New York ton 31.00 - —
bgs., l.c.l. works ton 34.00 - —
99.95X, 400 mesh, micronized, bgs., c.l. works ton 38.00 - —
625 mesh, micronized, bgs., c.l., works ton 80.00 - —


# molten sulphur

## HOW TGS MOLTEN SULPHUR TRAVELS FROM FRASCH MINES TO CUSTOMERS

—Note the Flexibility of the Interlocked System that Assures Supplies—


FANNETT
NEWGULF
MOSS BLUFF
SPINDLETOP
SOLID SULPHUR VAT BUILDUP
SOLID SULPHUR VAT BUILDUP
SOLID SULPHUR VAT BUILDUP
SOLID SULPHUR VAT BUILDUP
CUSTOMER SHIPMENTS DIRECT FROM MINES
CUSTOMER SHIPMENTS DIRECT FROM MINES
VATS OF SOLID SULPHUR
MAIN TERMINAL
BEAUMONT, TEXAS
STORAGE TANKS OF MOLTEN SULPHUR
SHIPMENTS BY RAIL, RIVER AND SEA
TANK CAR
• TO CUSTOMERS IN ALL PARTS OF THE COUNTRY
TANK TRUCK
LOCAL DELIVERIES FROM MAIN AND REGIONAL TERMINALS
RIVER BARGE
TO CUSTOMERS ON RIVERS AND TO OUR INLAND RIVER TERMINALS FOR OVERLAND DISTRIBUTION
OCEAN TANKER
TO ATLANTIC COAST REGIONAL TERMINALS FOR LOCAL OVERLAND AND BARGE DISTRIBUTION
NOTE: Overland Shipments of Solid Sulphur Can be Made Direct From the Mines
Flow of Molten Sulphur

## Flexible Facilities to meet a Growing Demand

The rapidly growing demand for deliveries of sulphur in molten form—and it is coming from all parts of the country—is well-answered by the flexibility of our production, storage and distribution facilities.

Here, graphically, is the way TGS Molten Sulphur moves from the four Frasch Process producing areas in Texas to customers. Unusual flexibility enables us to do several things simultaneously. We can fill orders direct from the mines, build up inventory at our main terminal in Beaumont, Texas, ship to customers from this main terminal or supply our regional terminals.

We maintain steady production schedules at all properties. With flexible storage, shipping and delivery facilities of not only molten sulphur but solid sulphur, we are in a strong position to serve the sulphur-consuming plants all over the United States and Canada. Our sulphur recovery plants (from natural gas) in Wyoming and Alberta take care of the demand in northwest United States and Western Canada for both molten and solid sulphur.

**TEXAS GULF SULPHUR COMPANY**
75 East 45th Street, New York 17, N. Y.
811 Rusk Avenue, Houston 2, Texas
*Sulphur Producing Units:* Newgulf, Texas • Moss Bluff, Texas • Fannett, Texas • Spindletop, Texas • Worland, Wyoming • Okotoks, Alberta, Canada

Talc, dom., ord., Calif., grd., bgs., c.l., works ton.34.00 -39.50
Vermont, off-color, grd., bgs., c.l., works ton.19.40 • —
bgs., l.c.l., works ton.37.00 • —
Imp., Canadian, grd., bgs., c.l., mines ton.20.00 -35.00
tanks, works lb. .02½- .03⅛
Tall oil, crude, tanks, works lb. .03¼- .03½
Acid, refined dms., c.l., works lb. .08¾- .10
tanks, works lb. .07½- .08¾
Dist., depending on grade, dms., c.l., works lb. .07¼- .09¾
tanks, works lb. .06 • .08½
Tall oil fatty acids, less 2% rosin acid, dms., c.l., works lb. .09¾- .11
tanks, works lb. .07¾- .09
2-6% rosin acid, dms., c.l., works, lb. .08½- .09
tanks, works lb. .06½- .07
Tallow, edible, tanks, dlvd. lb. .09 • —
Inedible, fancy, bleachable, tanks, lb. .05⅞- —
fancy, guarant'd bulk lb. .06⅜- —
dms. f.a.s. lb. .07⅝- —
tanks, dlvd. lb. .06¼- —
No. 1, dlvd. lb. .05⅜- —
Prime, tanks, dlvd. lb. .05⅝- —
Special tanks, dlvd. lb. .05½- —
Sulfonated, 25%, bbls., l.c.l. lb. .08½- .08¾
50%, bbls., l.c.l. lb. .10½- .11
Tallow acids, dist., dms. lb. .13¼- .15¾
tanks lb. .10¾- —
Hydrogenated, dms. lb. .15½- .18
Tallow oil, acidless, dms., c.l. lb. .14 • —
dms., l.c.l. lb. .16 • —
tanks lb. .12½- —

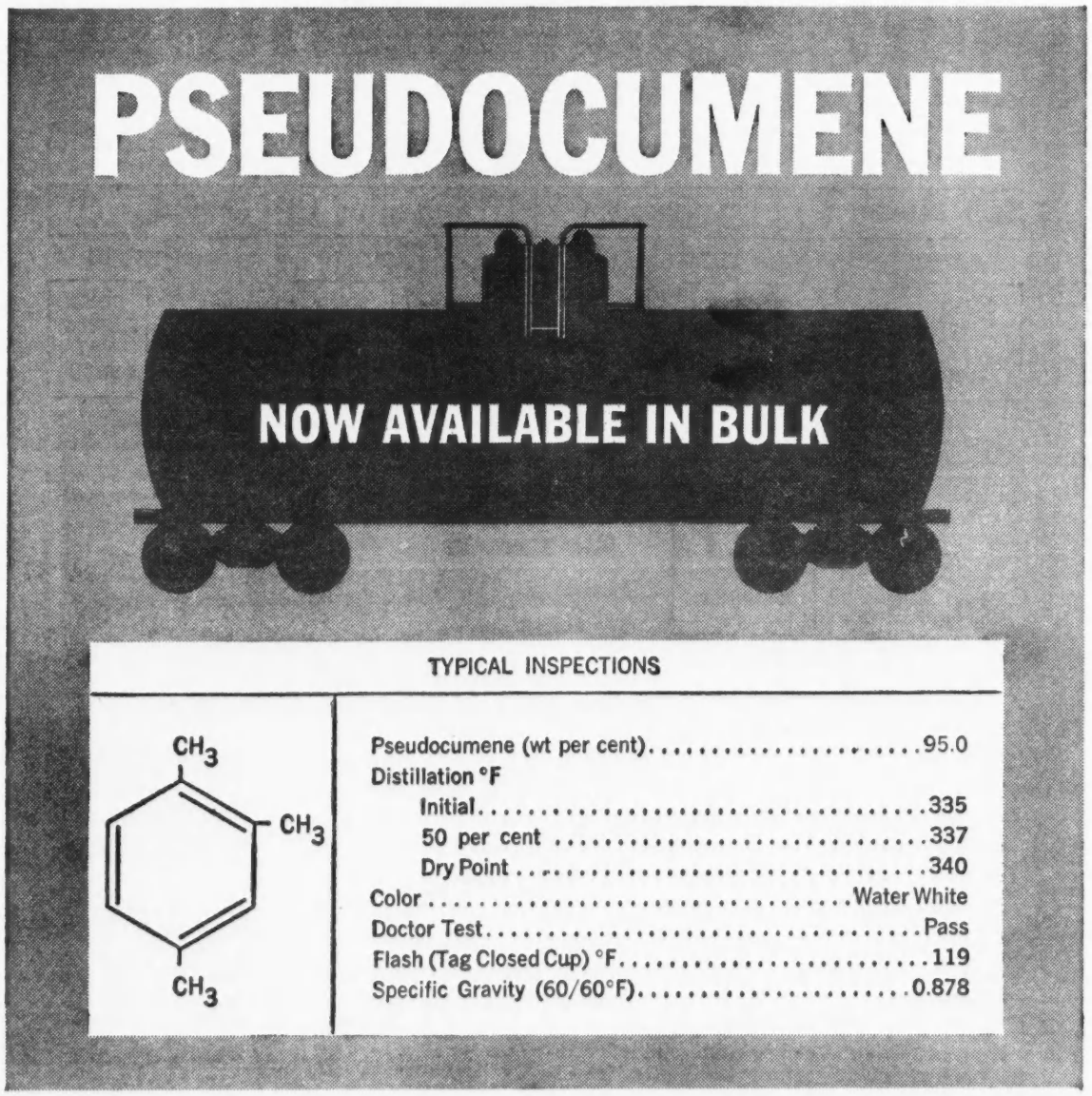
Tangerine oil, Florida, dms. lb. 4.75 • —
Tankage, animal, feeding, 9-11% ammonia, New York bulk, unit-ton. 4.75 • 5.00
Tannic acid, NF, fluffy, bbls., 1,000-lb. lots lb. 2.05 • —
bbls., smaller lots lb. 2.06 • 2.07
powd., bbls., 1,000-lb. lots lb. 1.95 • —
bbls., smaller lots lb. 1.96 • 1.99
Tech., dms. lb. 1.05 • —
Tansy oil, dms lb. 6.60 • 8.00
Tar acid oil, 15-18%, dms., c.l., dms., l.c.l., same basis gal. .55½- —
tanks, same basis gal. .43½- —
25-28%, dms., c.l., frt. equald basis gal. .53½- —
dms., l.c.l., same basis gal. .60 • —
tanks, same basis gal. .62 • —
50-53%, dms., c.l., same basis gal. .50 • —
dms., l.c.l., same basis gal. .77 • —
tanks, same basis gal. .65 • —
Tar, coal (see Coaltar).
Tartar emetic (see Antimony potassium tartrate).
Tartaric acid, NF, 100-lb. bgs., c.l., frt. equald lb. .41 • —
bgs., 10,000 lbs., 1 shipt., same basis lb. .43 • —
bgs., smaller lots, same basis lb. .47 • —
Terpine hydrate, NF, cryst., powd., 100-lb. fib. dms lb. .70 • —
Terpineol, extra, dms lb. .50 • .60
Prime, dms. lb. .40 • .50
Terpinyl acetate, extra, cns., dms. lb. .64 • .75
Prime, dms. lb. .53 • .56
Terpinyl propionate, dms. lb. 1.65 • 1.70
Testosterone, USP, bots. gram. No prices.
Testosterone propionate, USP, bots. gram. No prices.
Tetrachloroethane, dms., works lb. .14½- —
Tetrasodium pyrophosphate (see Sodium pyrophosphate).
Tetrachloroethylene, tech. (see Perchloroethylene).
Tetrachloroethylene, USP, 55-gal. dms., c.l., t.l., works lb. .20½- —
dms., l.c.l., works lb. .22 • .23½
Tetraethyl orthosilicate, dms., c.l., dlvd. E lb. .65 • —
dms., l.c.l., dlvd. E lb. .66½- —
Tetraethyl pyrophosphate, 40%, cns., dms., frt. equald lb. .75 • —
Tetraethylenepentamine, dms., c.l., dlvd. E lb. .53½- —
dms., l.c.l., dlvd. E lb. .55 • —
tanks, dlvd. E lb. .51 • —
Tetraethylthiuram disulfide, tech., dms., frt. alld lb. 1.04 • —
Tetrahydrofuran, dms., c.l., t.l., works lb. .36½- —
dms., l.c.l., or l.t.l., works lb. .37 • —
tanks, works lb. .35 • —
Tetrahydrofurfuryl alcohol, dms., c.l., t.l., Memphis, Tenn. lb. .25½- —
dms., l.c.l., Memphis, Tenn. lb. .26½- —
dms., c.l., t.l., Newark, N.J. lb. .27½- —
Tetrahydrofurfuryl alcohol, dms., l.c.l., Newark, N. J. lb. .28½- —
tanks, dlvd. E. of Denver lb. .25 • —
tanks, dlvd. W. of Denver lb. .26 • —
Tetrahydrophthalic anhydride, dms., c.l., t.l., frt. alld. E lb. .39 • —
l.c.l., t.t.l., same basis lb. .41 • —
Tetrapotassium phosphate (see potassium phosphate).

Thallium metal, dlvd. lb. 7.50 -10.00
Thallium sulfate, 99%, bots., dlvd. lb. 8.00 -10.00
Theobromine, NF, fib. dms., 100-lbs., f.o.b., works lb. 4.10 • 4.15
Theobromine and sodium acetate, USP, fib. dms., 500-lbs. works lb. 6.45 • —
Theobromine, sodio-salicylate, NF, fib. dms., 500-lbs., works. lb. 3.80 • —
Theophyline, USP, anhyd., 100-lb. dms., frt. alld lb. 3.65 • —
Thiamine hydrochloride, USP, fib. dms., frt. alld. kilo.27.00 • —
Thiamine mononitrate, USP, fib. dms., frt. alld. kilo.27.00 • —
Thiocarbanilide, dms., ton lots lb. .74 • —
dms., less ton lots lb. .76 • —
Thiodiphenylamine (see Phenothiazine).
Thioflavin green toner, brilliant, molybdated, PMA, kgs., works lb. 5.20 • —
Tungstated, PTMA, kgs., works lb. 6.20 • —
Thioglycolic acid, refd., 55 gal. dms., ton lots, 100% basis lb. 1.15 • —
Thiosalicylic acid, 80%, dms., 1,000-lb., lots, works lb. 4.00 • —
Thiourea, tech., bgs., t.l., frt. alld. lb. .30 • —
bgs., ton lots, same basis lb. .32 • —
bgs., less than ton lots, same basis lb. .33 • —
Thorium nitrate, purif., fib. dms., 100-lb. lots or more, works lb. 3.50 • —
dl-Threonine, dms., 25 kilos, works, kilo.115.00 • —
Thyme leaves, French, tripie sifted extra, bgs lb. .25 • —
Spanish, extra, bgs lb. .11 • —
reg., bgs. lb. .08 • —
Thyme oil, NF, red, cns., dms. lb. 3.25 • 3.60
NF, white, cns lb. 3.50 • 3.95
Tech., white, cns lb. .80 • 1.10
Thymol, fib. dms., 25-lbs., f.o.b. works lb. 2.45 • —
Thymol iodide, NF, dms., 100-lbs. f.o.b. works lb. 7.30 • —
Timbo root (see Cube root)
Tin chloride (see Stannous chloride, anhyd.)
Tin crystals (see Stannous chloride, hydrous)
Tin metal (Straits) lb. 1.22 • —
Tin oxide (see Stannic oxide).
Tin sulfate (see Stannous sulfate).
Tin tetrachloride, anhyd. (see Stannic chloride, anhyd.).
Titanium dioxide, anatase, all grades, bgs., c.l., min. frt. alld. lb. .25½- —
bgs., l.c.l., same basis lb. .26½- —
Titanium dioxide, rutile, all grades, bgs., c.l., min. frt. alld. .27½- —
bgs., l.c.l. same basis .28½- —
metallurgical, nat., bgs., c.l., f.o.b. Jacksonville Fla.ton.180.00 • —
Titanium dioxide, metallurgical, nat., bgs., 5-ton lots, Niagara Falls, N. Y. ton.205.00 • —
bgs., ton lots, same basis ton.215.00 • —
Milled metallurgical titanium dioxide $7.50 per ton higher
Titanium dioxide-calcium pigment, 30% Ti $O_2$, reg., bgs., c.l., f.o.b. lb. .09⅜- —
bgs., l.c.l., works lb. .09⅞- —
80% Ti $O_2$, high-tinting, dms., c.l., lb. .14⅜- —
dms. l.c.l. lb. .14⅞- —
Titanium hydride, powd., dms., works lb. 8.10 • 9.00
Titanium tetrachloride, tech., dms., c.l., works lb. .26 • —
dms., l.c.l., works lb. .27½- .29
tanks, works lb. .20 • —
Tobias acid, dms., c.l., t.l., 20,000 min., f.o.b. plant, frt. alld. E lb. .81 • —
dms., l.c.l., l.t.l., 5,000-lbs.-19,999 lbs., same basis lb. .81½- —
dms., l.c.l., l.t.l., less than 5,000 lbs., same basis lb. .84 • —
For west coast delivery add 2c. per lb.
d-a-Tocopherols, NF, mixer, conc., pure basis, bots kilo.67.00 • —
d-a-Tocopheryl acetate, NF, conc., pure basis, bots kilo.122.00 • —
d-a-Tocopheryl acid succinate, cryst., bots kilo.109.00 • —
dl-a-Tocopherol, bots. kilo.99.00 • —
dl-a-Tocopheryl acetate, bots kilo.90.00 • —
25% dry, powd., bots kilo.22.50 -24.00
33⅓% dry, powd., bots. kilo.30.00 -31.50
o-Tolidine base, dry, kgs., 100% basis lb. 1.55 • —
Paste, kgs., 100% basis lb. 1.50 • —

**TOLUOL**
**Toluol quotations, both coaltar and petroleum, may be found under Toluene.**

o-Tolidine hydrochloride paste, kgs., 100% basis lb. 1.50 • —
Tolu balsam, cns. lb. 4.00 • 4.50
Toluene, coaltar, indust., or nitration, tanks, dlvd. E. of Rockies gal. .25⅛- —
Petroleum, indust., tanks, f.o.b., frt. equald gal. .25 • —
p-Toluenesulfonamide, powd., dms., t.l., works lb. .60 • —
dms., l.t.l., same basis lb. .63 • —
Toluenesulfonic acid, 55-gal. dms., t.l., frt. alld lb. .16 • —
1,000-lb. or more, same basis lb. .18 • —
less than 1,000-lb., same basis lb. .23 • —
tanks, same basis lb. .14 • —
Toluenesulfonic acid in 10-gal. dms., 2c. per lb. more.
p-Toluenesulfonic acid monohydrate, dms., c.l., or t.l. lb. .90 • —
dms., 125 lbs. to t.l. lb. 1.00 • —
m-Toluidine, dms., c.l., works, frt. alld. lb. .83 • —
dms., l.c.l., same basis lb. .84 • —
tanks, same basis lb. .82 • —
o-Toluidine, dms., c.l., works, frt. alld. lb. .27 • —
dms., l.c.l., same basis lb. .28 • —
tanks, same basis lb. .26 • —
p-Toluidine, tech., flake, dms., frt. alld lb. .50 • —
Cast, dms., frt. alld. lb. .45 • —
p-Toluidine-m-sulfonic acid, dms., works lb. .92 • 1.04
Toluidine red toner, deep shades, kgs., works lb. 1.70 • —
Light shades, kgs. works lb. 1.70 • —
2,4-Tolylenediamine, cryst., fib. dms., l.c.l., frt. alld lb. 1.10 • —
Tonka beans, Angostura, prime f.o.b., N.Y. lb. 1.35 • 1.50
Brazilian, Surinam, cs., same basis lb. 1.00 • 1.10
Totaquine, 100-oz. lots, cns. oz. .42 • —
Toxaphene, dms., c.l., t.l., works. lb. .22 • —
dms., l.c.l., l.t.l., works lb. .28 • —
Tragacanth gum, No. 1, ribbons, cs lb. 4.10 4.20
No. 2, cs. lb. 3.75 3.80
No. 3, cs. lb. 3.40 3.65
USP, powd., bbls. lb. 1.05 1.15


*What's News in Enjay Chemicals...*




TYPICAL INSPECTIONS




| | |
|---|---|
| Pseudocumene (wt per cent) | 95.0 |
| Distillation °F | |
| Initial | 335 |
| 50 per cent | 337 |
| Dry Point | 340 |
| Color | Water White |
| Doctor Test | Pass |
| Flash (Tag Closed Cup) °F | 119 |
| Specific Gravity (60/60°F) | 0.878 |

**FIRST** from Enjay in commercial quantities... pseudocumene (1,2,4, trimethylbenzene) is now available for immediate delivery. Enjay pseudocumene is a low-cost, highly reactive, aromatic hydrocarbon which can be readily converted to intermediates for production of surface coatings, plasticizers, drugs, dyes and many other products.

Pseudocumene will be used commercially in large quantities to produce trimellitic anhydride for use in the manufacture of surface coatings and plasticizers. A blend of pseudocumene and bromobenzene has been found to possess a very high viscosity index, making it a possible useful hydraulic medium in control apparatus designed to operate over wide temperature ranges.

**COMPLETE INFORMATION** – For a new Pseudocumene Brochure #D-16, write to Enjay, Room 1131, 15 West 51st Street, New York 19, New York.

EXCITING NEW PRODUCTS THROUGH PETRO-CHEMISTRY

**ENJAY CHEMICAL COMPANY**

A DIVISION OF HUMBLE OIL & REFINING COMPANY

ENJAY

Triacetin, dms., c.l., dlvd. E. of Rockies..lb. .32 • —
dms., l.c.l., same basis.....lb. .39½- —
tanks, same basis .....lb. .35½- —
Triallylamine, dms., c.l., dlvd...lb. .265 • —
dms., l.c.l., dlvd. .....lb. .295 • —
tanks, dlvd. .....lb. .26 • —
Tributyl citrate, tech., non-ret. dms., c.l., frt. alld. E. of Denver. lb. .42½- —
non-ret. dms., l.c.l., frt. alld. E. of Denver..lb. .43½- —
tanks, frt. alld. E. of Denver lb. .40 • —
Tributyl phosphate, dms., c.l., works. lb. .52½- —
dms, l.c.l., same basis.....lb. .53½- —
tanks, same basis.....lb. .50 • —
Tributylamine dms., c.l., works..lb. .67½- —
dms., l.c.l., same basis.....lb. .69 • —
tanks, same basis.....lb. .65 • —
Tributyrin, dms. l.c.l., dlvd. ...lb. .69 • —
Trichloroacetic acid, tech., 300-lb. dms., c.l., f.o.b. works lb. .52 • —
USP, 100-lb. dms., frt. equald lb. 1.25 • —
Trichlorobenzene dms., c.l., frt. alld. E. lb. .15 • —
dms., l.c.l., frt. alld. E. .....lb. .16 • —
tanks, frt. alld. E. .....lb. .13¼- —
Trichlorobenzene prices in the West 1¾c. higher.
1,1,1-Trichloroethane, dms., c.l., dlvd. lb. .13¼- —
dms., l.c.l., dlvd.....lb. .16 • —
tanks, dlvd .....lb. .12¼- —
1,1,2-Trichloroethane, dms., c.l., works..lb. .15½- —
dms., l.c.l., works .....lb. .16¼- —
tanks, works .....lb. .13½- —
Trichloroethylene, dms., c.l., or t.l., dlvd..lb. .12½- —
dms., l.c.l., dlvd. .....lb. .14 - .14¼
tanks, dlvd. .....lb. .11¼- —
Trichloroisocyanuric acid, dms., c.l., t.l., frt. equald..lb. .65 • —
dms., l.c.l. same basis .....lb. .75 • —
Trichlorophenoxyacetic acid (see 2,4,5-T).
Tricholine citrate, 65% soln., non-ret. dms., 1 dm. frt. equald..kilo. 3.10 • —
Tricresyl phosphate, coaltar, dms., c.l., dlvd..lb. .33 • —
dms., l.c.l., dlvd. .....lb. .36 • —
tanks, dlvd .....lb. .32½- —
Petroleum, dms., c.l., dlvd...lb. .35 • —
dms., l.c.l., dlvd. .....lb. .36 • —
tanks, dlvd. .....lb. .32½- —
Tridecyl alcohol, mixed isomers, dms., c.l., dlvd. E..lb. .22½- —
dms., l.c.l., dlvd. E.....lb. .24 • —
tanks, dlvd. E.....lb. .20 • —
Triethanolamine, dms., c.l., dlvd. E. lb. .24½- —
dms., l.c.l., same basis.....lb. .26 • —
tanks, same basis .....lb. .23 • —
Triethanolamine lauryl sulfate, dms., c.l., t.l., frt. alld..lb. .25½- —
dms., l.t.l., frt. alld. .....lb. .26½- —
tanks, frt. alld. .....lb. .24½- —
Triethylamine, dms., c.l., dlvd. E. lb. .50 • —
dms., l.c.l., same basis.....lb. .51½- —
tanks, same basis .....lb. .47½- —
Triethyl citrate, refd., tech., non-ret. dms., c.l., frt. alld. E. of Denver..lb. .46¼- —
non-ret. dms., l.c.l., frt. alld. E. of Denver..lb. .47¼- —
tanks, frt. alld. E. of Denver, lb. .43¾- —
Triethyl phosphate, dms., c.l., dlvd. lb. .40½- —
dms., l.c.l., dlvd. .....lb. .42 • —
tanks, dlvd. .....lb. .38 • —
Triethylene glycol, dms., c.l., dlvd. E..lb. .21 • —
Triethylene glycol, dms., l.c.l., dlvd. E..lb. .22½- —
tanks, dlvd. E..... .....lb. .18½- —
HP, tanks, dlvd. E.....lb. .20 • —
Triethylenetetramine, dms., c.l., dlvd. E..lb. .48½- .48¾
dms., l.c.l., same basis .....lb. .50 • .50¼
tanks, same basis .....lb. .46 • —
Triisobutylene, tanks, dlvd. .....lb. .08 • —
Tri-isopropanolamine, dms., c.l., dlvd. E..lb. .23¼- —
dms., l.c.l., dlvd. E.....lb. .24¾- —
tanks, dlvd. E .....lb. .20¾- —
Trimethylamine, anhyd., cyls., l.c.l., frt. equald, 100% basis.lb. .30 • .305
tanks, frt. equald, 100% basis, lb. .26 • —
25-40% soln., dms., c.l., frt. equald, 100% basis .lb. .35½- —
dms., l.c.l., frt. equald, 100% basis. lb. .35½- —
tanks, 100% basis, frt. equald..lb. .26 • —
Trimethylolpropane, dms., c.l., t.l., dlvd. E..lb. .30½- —
dms., l.c.l., l.t.l., same basis....lb. .31½- —
Trioxanes, pure, dms., c.l., t.l., works..lb. .50 • —
dms., l.c.l., works .....lb. .51½- —
Tripentaerythritol, bgs., c.l., t.l., dlvd. E..lb. .34 • —
bgs., l.c.l., l.t.l., dlvd. E..lb. .35 • —
Triphenyl phosphate, bbls., c.l. frt. equald..lb. .41¼- —
bbls., l.c.l., frt. equald .....lb. .43½- —
Triphenylguanidine, bbls., works.lb. .90 • —
Tripropylene, dms., c.l., dlvd. E. gal. .44 • —
dms., l.c.l., same basis.....gal. .54 • —
tanks, same basis .....gal. .28 • —
Tripropylene glycol, dms., c.l., t.l., frt. alld. E..lb. .20½- —
dms., l.c.l., l.t.l., frt. alld. E..lb. .22 • —
tankcars and compartmented tankcars, frt. alld. E..lb. .17½- —
tankwagon and compartmented tankwagon, 1,000 gals., min. frt. alld. E..lb. .18 • —
Tripropylene glycol prices 1c. per lb. higher in west.
Trisodium phosphate (see Sodium phosphate tribasic).
dl-Trypophane, dms., 1 kilo, works. kilo.154.00 • —
Tung oil, dms., New York.....lb. .29½- .29¾
tanks, imported .....lb. .28 • —
tanks, domestic, mills .....lb. .27¾ Nom.
Tungsten metal, powd., 2.0-2.5 microns, dms., works lb. 4.25 • —
Tungstic acid, tech., dms., 1,000-lb. lots, works..lb. 2.25 • —
dms., smaller lots, works....lb. 2.45 • —
Turkey red, bbls., works .....lb. .82 • —
Turpentine, gum (see Protective Coatings market, Naval Stores).
Turpentine oil, NF, cns., dms lb. .38 - .50
Tuscan red, bbls., frt. equald lb. .26 - .32
Tyrothricin, USP, 1 to 5 kilos, gram. .50 • —

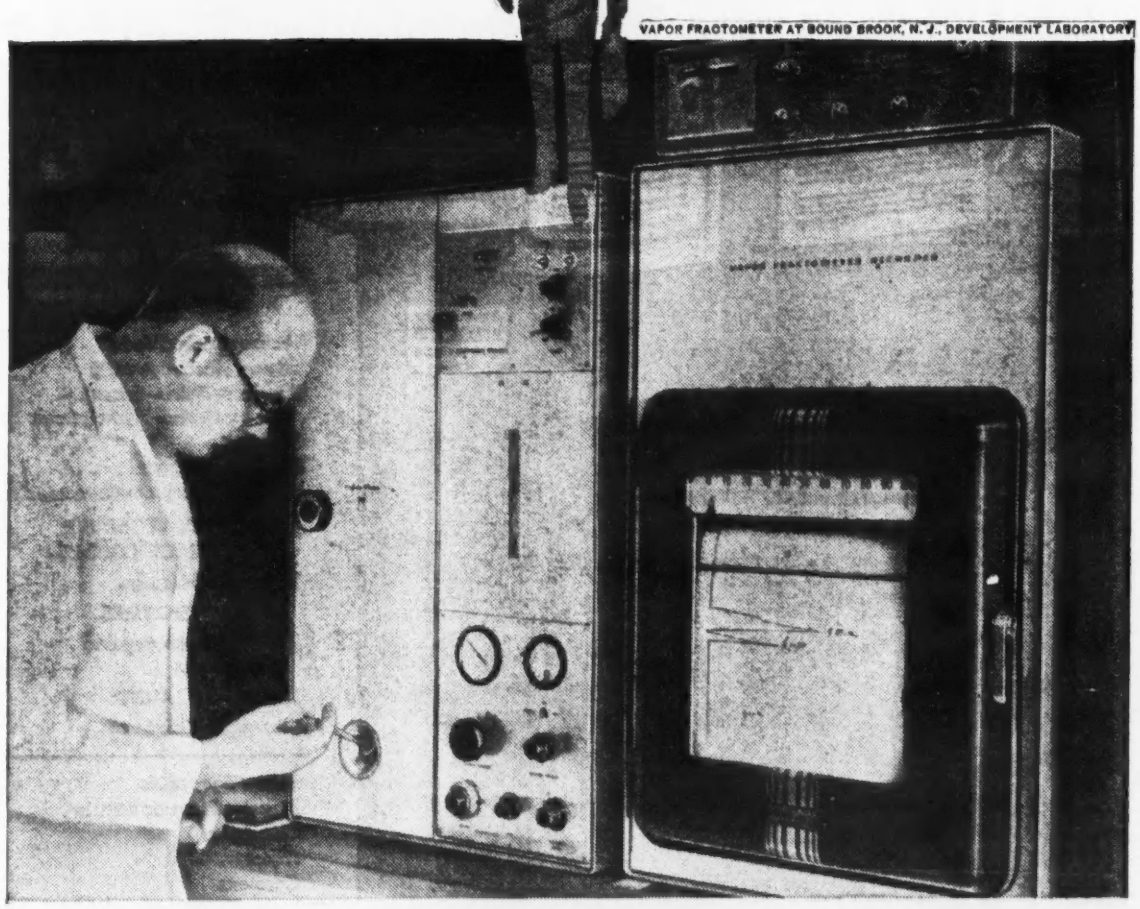
## U

Ultramarine blue, cobalt type, dry or pulp, 250-lb. bbls., dlvd. E. of Rockies..lb. .33½- .38
Ultramarine blue, jobbing types, dry, bbls., same basis..lb. .18 • .19
Regular types, dry bbls., same basis..lb. .23 • .40½
Ultramarine blue prices 1c higher W. of Rockies.
Umber pigment, burnt, American, bgs., c.l., works lb. .07½- .07¾
bgs., l.c.l. works .....lb. .07¾- .08
turkey-type, bgs., c.l., Boston, Bethlehem, Easton, Pa., Hiwassee, Va., N.Y...lb. .08¼- —
Raw, American, bgs, works....lb. .07¾- .08¼
Turkey-type, bgs., works.....lb. .08½- .08¾
Undecylenic acid, 55-gal. dms., f.o.b. works lb. 1.88 • —
Unicorn root, false (see Helonias root).
Unicorn root, true (see Aletris root).
Urea, 46% N, indust., bgs., c.l., t.l., f.o.b. plant..ton.100.00 • —
Urea, feed grade, c.l., t.l., f.o.b. plant..ton.95.00 • —
45% N, agricultural, bgs., c.l. f.o.b. plant..ton.87.25 • —
Bulk, c.l., t.l., same basis..ton.81.25 • —
Urea-ammonia liquor A, B, C & F grades, N basis, tanks, frt. equald ton.120.00 • —
37 grade, tanks, same basis ton.145.00 • —
Urethane, USP, dms., t.l., f.o.b. works lb. .65 • —
dms., l.t.l., same basis.....lb. .70 • —
Uva-ursi leaves, bls .....lb. .12 • —

## V

Valerian root, Belgian bgs. ....lb. .32 • —
Indian, bgs. .....lb. .25 • —
dl-Valine, dms., 1 kilo, works kilo.37.00 • —
Vanadium pentoxide, tech., dms., works lb. 1.38 • —
Vandyke brown, bbls., works lb. .09½- .12
Vanilla beans, Bourbon, tins.....lb. 7.00 - 7.25
Mexican cuts, tins .....lb. 7.60 - 7.80
whole, tins .....lb. 7.90 - 8.10
Vanillin ex lignin, 100-lb. fib. dms., 2,000-lb. lots or more lb. 3.00 • —
less than 2,000 lbs.....lb. 3.20 - 3.30
Venetian red, jobbing, bgs., works. lb. .0475- —
Venetian red, 20%, bgs., works lb. .0525- —
25%, bgs., works.....lb. .0575- —
30%, bgs., works.....lb. .06 - —
35%, bgs., works.....lb. .0625- —
40%, bgs., works.....lb. .0675- —
Vetiver oil, Bourbon, cns.....lb.17.00 -17.25
Haitian, cns. .....lb.10.00 -12.00
Victoria blue toner, molybdated, PMA 250-lb. bbls., dlvd. E. of Rockies lb. 4.50 - 4.95
Tungstated, PTMA, 250-lb. bbls., dlvd. E. of Rockies lb 5.55 - —
Victoria blue toner, bbls., prices 1c. higher W of Rockies.
Vinyl acetate monomer, zone 1, 55-gal. dms., c.l., dlvd lb. .1810- —
55-gal. dms., l.c.l., dlvd ... lb. .1960- —
tanks, dlvd. .....lb. .1560- —
tanktrucks less than 4,000 gal., dlvd lb. .1610- —
Vinyl n-butyl ether, tech., dms., l.c.l., works lb. .50 • —
Vinyl chloride monomer, tanks, works, min. frt. equald E. lb. .0750- —
Vinyl ether, USP, anesthesia, bots., 50cc., hospitals bot 1.12 • —
bots., 75cc., hospitals bot 1.56 • —
Vinyl ethyl ether, tech., dms., c.l., works lb. .30¼- —
dms., l.c.l., works ..... lb. .31 • —
tanks, works ..... lb. .28¼- —
Vinyl propionate monomer, dms., c.l., dlvd lb. .49 • —
dms., l.c.l., same basis ..... lb. .50 • —
tanks, same basis ..... lb. .47 • —
Vinyl trichloride (see Trichloroethane).
2-Vinylpyridine, 10 dms. to tanks, works lb 1.20 • —
1 to 9 dms., works.....lb. 1.35 • —
tanks, works.....lb. 1.15 • —
Vinyltoluene, dms., c.l., f.o.b., dest. frt. paid, Zone 1..lb. .16½- —
dms., l.c.l., same basis ..... lb. .18½- —
tanks, same basis .....lb. .14 • —
Zone 2 prices are 1c. per lb. higher.
Zone 1 is East of Rockies, Zone 2 is West of Rockies.
Viosterol in nat. vegetable oil, 1,000,000 D units per gram bots., lots of 10 billion USP units 1,000,000 units. .02½- —
Virginia type red, bbls., works lb 1.40 • —
Vitamin A acetate, dry, 500,000 units per gram, kilo lots kilo.47.50 • —
325,000 units per gram, same basis..kilo.30.88 • —
250,000 units per gram, same basis..kilo.23.75 • —
Dry vitamin A acetate in less than kilo lots, $1.25 to $2.50 per kilo higher.
Vitamin A, liq in oil, 1,000,000 A units per gram 1,000,000 units. .07 • —
Vitamin A palmitate, liq., 1,000,000-1,800,000 A units per gram..1,000,000 units. .07 • —
Vitamin $B_1$ (see Thiamine hydrochloride).
Vitamin $B_2$ (see Riboflavin and Yeast).
Vitamin $B_{12}$, cryst., USP (cyanocobalamin), 1-50 grams, vials, tins gram.45.00 • —


THE MAN FROM AIRCO
IS BACKED BY EXTENSIVE
RESEARCH FACILITIES

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## Vitamin $B_{12}$—Zinc Oxide

Vitamin $B_{12}$, 0.1% vitamin $B_{12}$, USP, adsorbed on gelatin, 100 and 500-gram bots on 1-5 kilo, dms., gram .57 • —

Vitamin $B_{12}$, 0.1% vitamin $B_{12}$, USP, adsorbed on resin, 100 and 500-gram bots., 1-5 kilo dms gram .57 • —

Vitamin $B_{12}$, oral grade solids in containers of 1 and 10 gram of $B_{12}$ activity gram.52.00 • —

0.1% trituration of cryst., $B_{12}$ with dicalcium phosphate or mannitol, 1-10 kilo.52.00 • —

0.1% trituration of cyanocobalamin, USP, with dicalcium phosphate or mannitol gm.52.00 • —

USP solution of cyanocobalamin (5,000 micrograms per cc.), 5-gram bots gram.52.00 • —

Vitamin $B_{12}$, 0.1% cobalamin concentrate, NF adsorbed on resin 500-gram bots., 1-5 kilo dms. frt. alld gram .57 • —

Vitamin $B_{12}$, 0.1% cobalamin concentrate in gelatin, 1-10 kilo, dms., frt. alld gram .57 • —

Vitamin C (see Ascorbic acid).

Vitamin $D_2$ (see Codliver and Fishliver oils, Calciferol and Viosterol).

Vitamin D, dry, 850,000 units per gram, kilo lots kilo.42.50 • —

850,000 units per gram less than kilo lots kilo.45.00 • —

Vitamin E (see a-Tocopherol and Wheat germ oil).

Vitamin H (see Biotin).

Vitamin K, active (see Menadione).

Vitamin $K_1$, 25-gram lots gram. 4.50 • —

Violet methyl toner (see Methyl violet toner).

VM&P naphtha (see Naphtha, VM&P, petroleum).

## W

Wahoo root bark, bls lb. 2.10 • —

Warfarin, 0.5%, dms., 50-lb. lots, dlvd lb. 1.95 • —

dms., 25-49-lb. lots, New York or Chicago lb. 2.05 • —

dms., 5-24-lb. lots, New York or Chicago lb. 2.15 • —

Watchung-type reds., bbls lb. 1.95 • —

**WAXES**
**Wax quotations are listed individually. For example, prices on Wax, carnauba, may be found in the C's under Carnauba wax.**

Wheat germ oil, 5-gal. dms. gal.12.23 • —

White lead (see Lead, white).

White mineral oil (see Mineral oil, white).

White pine bark, rossed, bls. lb. .21 • .22

White precipitate, USP, powd., dms., 100 lbs. f.o.b. works lb. 5.50 • —

Whiting (see Calcium carbonate).

Wild cherry bark, thin, nat., bls. lb. .22 • —

Wintergreen oil, USP nat. northern, cns lb. 6.35 -17.50

USP, nat. southern cns lb. 3.75 - 7.00

Wintergreen oil, syn. (see Methyl salicylate).

Witch hazel bark, bls lb. .26 • —

Witch hazel leaves, bls lb. .40 • —

Wollastonite, fine, paint grade, bgs., c.l., works ton.41.00 • —

bgs., l.c.l., ex whse ton.51.00 • —

medium paint grade, bgs., c.l., works ton.29.00 • —

bgs., l.c.l., ex whse. ton.39.00 • —

Wood alcohol (see Methanol).

Wood oil (see Tung oil).

Woolfat crude (see Degras).

Woolfat USP (see Lanolin).

Wormseed Levant bgs lb. 2.50 • —

Wormseed oil (see Chenopodium oil NF).

Wormwood oil, cns lb. 4.75 • —

## X

Xylene, coaltar, indust., tanks, works:

Bethlehem, Pa. gal. .29 • —

Birmingham dist. gal. .29 • —

Chicago dist. gal. .28½ • —

Cleveland dist. gal. .29 • —

Geneva, Utah gal. .29 • —

Johnstown, Pa. gal. .29 • —

Lackawanna, N.Y. gal. .29½ • —

Lone Star, Tex. gal. .27 • —

Lorain, Ohio gal. .29 • —

Middletown, Ohio gal. .30 • —

Minnequa, Col. gal. .29 • —

Philadelphia dist. gal. .29 • —

Pittsburgh dist. gal. .29 • —

Sparrows Point, Md. gal. .29 • —

Terre Haute, Ind. gal .29 • —

Youngstown, Ohio gal. .29 • —

Xylene, petroleum, indust., tanks, f.o.b. works:

Bayonne, N. J gal. .29 • —

Baytown, Tex. gal. .27 • —

Charleston, S. C. gal. .29 • —

Chicago, Ill gal. .28½ • —

Detroit, Mich., dlvd gal. .27½ • .29

Houston, Tex. gal. .27 • —

Philadelphia, Pa. gal. .29 • —

Providence, R. I. gal. .30 • —

Sewell's Point, Va. gal. .28 • —

Wood River, Ill. gal. .28½ • —

m-Xylene, 95%, dms., c.l., f.o.b., Richmond, Calif lb. .21 • —

dms., l.c.l., f.o.b., Richmond, Calif lb. .22 • —

tanks, frt. alld. lb. .19 • —

o-Xylene, dms., c.l., works lb. .08 • —

dms., l.c.l., works lb. .09 • —

tanks, works lb. .06 • .06½

p-Xylene, dms., c.l., works lb. .20 • —

dms., l.c.l., works lb. .21 • —

tanks, frt. alld. lb. .1645- —

Xylenol, cryst., 45°-47°C., m.p., dms., l.c.l., works, frt. equald lb. .23 • —

56°-58°C., m.p., dms., l.c.l., works, frt. equald lb. .33 • —

60°-62°C., m.p., dms., l.c.l., same basis lb. .40 • —

Xylenol fraction, b.r. 7°-9° C., dry above 227° C., dms., c.l., same basis gal. 1.25 • —

dms., l.c.l., same basis gal. 1.30 • —

tanks, same basis gal. 1.05 • —

b.r. 7°-9° C., dry at or below 227° C., dms., c.l., same basis. gal. 1.35 • —

dms., l.c.l., same basis gal. 1.40 • —

2,4-Xylidine, tech., dms., frt. alld. lb. 1.15 • —

2,5-Xylidine, tech., dms., frt. alld. lb. 1.20 • —

Xylidines, mixed, o-m-p, dms., c.l., or t.l., works lb. .39 • —

dms., l.c.l., same basis lb. .40 • —

tanks, same basis lb. .38 • —

**XYLOL**
**Xylol quotations, both coaltar and petroleum, may be found under Xylene.**

## Y

Yara yara oil, cns. lb. 2.15 - 3.05

Yeast, brewers, debittered, USP XV, Saccharomyces dlvd lb. .27 • —

Yeast, primary, USP XV, 150 meg. $B_1$ per gram, 100-lb. dms lb. .47 • —

USP XV, 270 meg., $B_1$ per gram, 100-lb. dms lb. .52 • —

primary, USP, XV, 300 meg., $B_1$ per gram, 100-lb. dms lb. .56 • —

USP XV, 900 meg. $B_1$ per gram, 100-lb. dms. lb. .60 • —

Torula, USP, dlvd. lb. .18 • —

**YELLOW PIGMENTS**
**Yellow pigment quotations are listed individually. For example, prices on Yellow, benzidine, may be found in the B's under Benzidine yellow**

Yerba santa leaves, bls. lb. .40 .45

Ylang Ylang oil, Bourbon, bots lb. 7.00 -22.00

extra, bots lb.24.00 -33.00

Yohimbine hydrochloride, bots., tins. oz. 3.75 - 4.25

## Z

Zein, 50-lb. bgs., c.l., t.l., f.o.b. works lb. .37 • —

50-lb. bgs., smaller lots, f.o.b. works lb. .41 • .44

Zinc acetate, NF, VIII, dms lb. .53 • —

Tech., dms., l.t.l., works lb. .2950- —

Zinc borate, bgs., 1,000 lbs or more, works lb. .25 • —

bgs., less than 1,000 lbs., same basis lb. .27 • —

Zinc chloride, NF, gran., dms lb. .42 • —

NF, precip., powd., dms lb. .26 • —

Tech., soln., 50%, dms., c.l., works 100 lbs. 5.80 • —

dms., l.c.l., works 100 lbs. 6.40 • —

tanks, works 100 lbs. 5.15 • —

fused, dms., c.l., works 100 lbs.10.70 • —

dms., l.c.l., works 100lbs.11.20 • —

Tech., gran., fib. dms., c.l., work 100 lbs.11.45 • —

fib. dms., l.c.l., works 100 lbs.11.95 • —

Zinc chromate bbls., dlvd. lb. .29 • —

Basic bbls., dlvd. lb. .34 • —

Zinc cyanide, dms., 1,000-lb. lots or more, works lb. .55 • —

dms., smaller lots, works lb. .57 • —

Zinc dust coml. bbls., c.l., works. lb. .16 • —

Pigment, bbls., c.l., works lb. .15½ • —

bbls., l.c.l., works lb. .17¼ • —

Zinc fluoride, bbls., works lb. .49 • .50

Zinc hydrosulfite, dms., c.l., frt. alld lb. .21½ • —

dms., l.c.l., frt. alld. lb. .23½ • —

Zinc metal, prime western, slabs, E. St. Louis lb. .11½ • —

Prime western slabs, New York. lb. .12 • —

Zinc naphthenate liq. 8% Zn., dms., frt. alld lb. .27 • —

10% Zn., dms., frt. alld lb. .33 • —

Zinc nitrate, tech., flake, 100-lb. fib. dms., l.c.l. lb. .16½ • —

300-lb. fib. dms, l.c.l. lb. .14½ • —

300-lb. fib. dms., c.l. lb. .14 • —

Zinc oxide pigment, American process, lead-free bgs., c.l., f.o.b. works lb. .12½ • —

bgs., l.c.l., 10 tons or more, same basis lb. .13 • —

bgs., l.c.l., smaller lots, same basis lb. .13½ • —

Zinc oxide, leaded, 35%, bgs., c.l., mills, f.o.b. works lb. .14 • —

bgs., l.c.l., 10 tons or more, same basis lb. .14½ • —

pigment, American process, leaded, 50%, bgs., l.c.l., 10 tons or more, same basis. lb. .14½ • —

Zinc oxide, pigment, French process, green seal, bgs., c.l., f.o.b. works lb. .14½ • —

bgs., l.c.l., 10 tons or more, same basis lb. .15 • —

Zinc oxide, French process, green seal, bgs., l.c.l., smaller lots, same basis lb. .14½ • —

red seal, bgs., c.l., same basis. lb. .14 • —

Zinc oxide, French process, white seal, bgs., l.c.l., 10 tons or more, same basis lb. .15 • —

bgs., l.c.l., smaller lots, same basis lb. .15½ • —

same basis lb. .15¾ • —

Zinc oxide, white seal, bgs., c.l., same basis lb. .14¾ • —

bgs., l.c.l., 10 tons or more, same basis lb. .15½ • —

bgs., l.c.l., smaller lots.

—Continued on page 41


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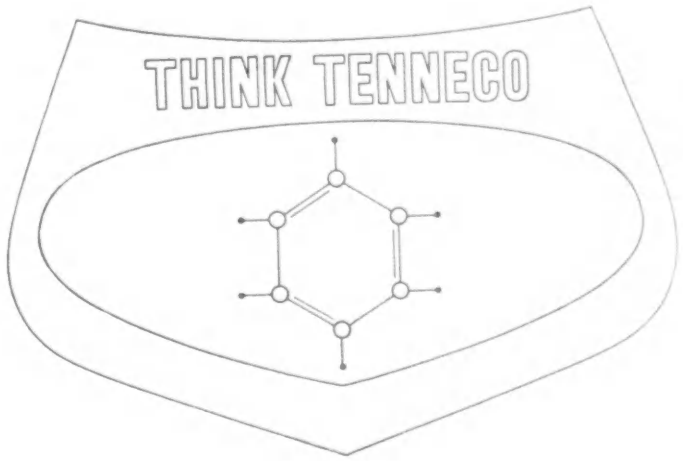
THINK TENNECO

# HF Trade Ponders AEC Needs, Price Outlook, New Plant Start-Up

Though Atomic Energy Commission is probably the largest single customer for open market hydrofluoric acid, the scheduled resumption of nuclear testing by the US is not expected to spur AEC purchases. Trade sources point out that the agency has continued to stockpile uranium fluoride compounds throughout the three-year moratorium on testing, with HF purchases maintained at a high level. Lending point to this and other questions on the HF market is the scheduled start-up of a new hydrofluoric acid plant in Paulsboro, N.J., this week.

With a rated capacity of 11,000 tons yearly, the new plant represents an eastern producer's initial venture in hydrofluoric acid. Observers are asking where the material will be sold and whether there will be any affect on prices.

A new vinyl fluoride plant under construction at Louisville, Ky., was at first thought to be a likely buyer of some open market HF, but it's since been indicated that the plant will be supplied captively. The firm, a major producer of refrigerants, has substantial captive capacity for HF.

Trade sources estimate that current HF capacity in the US—excluding the new plant—stacks up about 15,000 to 30,000 tons higher than total requirements. The capacity figure is tabbed at 140,000 tons as against annual consumption of 110,000 to 125,000 tons.

This capacity excess, together with the impending start-up of the new plant, caused prices to drop $2 a ton in early summer.

Will there be another cut? Trade opinion doesn't rule one out, but the consensus right now is for steadiness.

It's felt that the market has already adapted to the new capacity by way of that $2 cut, and that prices are now about as low as they can get.

### Price Trends

**Advanced**

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**Reduced**

Tin metal (Straits), 3c. per lb.
Salts, ½c. per lb.

**Comparative Price Indexes**

(100—1949 average)

| Last week | Prev. week | Last month | Sept. 9, 1960 |
|---|---|---|---|
| 106.64 | 106.84 | 106.81 | 106.88 |

*For Current Prices See Page* 11

## Acids

**Hydrochloric** — Producers here in the east continue to benefit from steel's improved performance, but how much of the improvement, observers ask, can be traced to hedging against a possible rise in steel prices?

Specialty accounts — petroleum, food processing, etc.—at least, are showing improvement in depth, and prospects point to a sparkling fourth quarter performance, these observers say.

**Nitric**—Captive operations are getting into high gear for what producers hope will be a brisk enough fertilizer season to offset a rain-drenched spring.

Open market consumption is responding to the brisk pace of organic chemical operations, sources close to the market report. Prices remain steady at long-established levels.

**Sulfuric** — Steel output continues to climb. Production during the week ended September 2 totaled 2,030,000 tons, up slightly from the previous week's [illegible] 000 tons, the American Iron & Steel Institute reports. Production for the year to date stands at 62,140,000 tons, down from 73,785,000 tons during the comparable period of last year.

## Bases and Salts

**Borax**—The holiday week-end interrupted what had been a steady climb in inquiry and orders for fall delivery, sources report. Prices remain steady at long-established levels; supply quite ample.

**Chlorine** — Electrolytic operations will be at a good pace this week, following the holiday heat wave interruption, to meet active demand in organic chemical accounts.

Prices remain steady at the advanced levels set in the spring of 1960. Outlook for the balance of the year is steady, observers say.

**Calcium Hypochlorite**—Here is one material really profiting from the heat. In fact, with more orders in their hands than they can fill, thanks to the swimming pool boom, producers have had to put calcium hypochlorite on allocation.

**Lime**—Lime output in the US in 1960 rose 4 percent to 13 million tons, including material for both open-market and captive uses, the Bureau of Mines reports.

Sales of open market lime were down 3 percent, but captive uses increased 16 percent, the Bureau notes. The former constituted 63 percent of all national sales, and the latter the remaining 37 percent.

Chemical and industrial lime sales together increased 6 percent over 1959, while other use categories registered declines: Agricultural lime, down 4 percent; construction lime down 6 percent, and refractory lime (dead-burned dolomite) down 2 percent.

Seventy-four percent of all lime produced was used by chemical and industrial plants; 15 percent was used in refractory outlets, 10 percent went into construction, and 1 percent turned up in agriculture, according to the report.

**Sodium Perborate**—A price advance of one-half cent a pound has been posted for October 1. Bag carloads will be newly quoted at 13.7 cents a pound. The material is an oxygen bleaching agent used in pharmaceuticals, cosmetics and home and industrial bleaches.

**Sulfur**—The following figures from the Bureau of Mines show output, shipments, sales, stocks and imports of sulfur for specified periods, in long tons.

| | *June* | *May* |
|---|---|---|
| Native sulfur: | | |
| Production | 474,528 | 473,491 |
| Shipments | 437,678 | 458,612 |
| Sales | 486,954 | 411,200 |
| Stocks | 3,829,884 | 3,842,310 |
| Recovered sulfur: | | |
| Production | 71,981 | 71,296 |
| Shipments | 71,374 | 72,035 |
| Sales | 71,204 | 73,208 |
| Stocks | 106,429 | 105,652 |
| Imports: | | |
| Ore, Canada | 4,786 | 7,104 |
| Mexico | 7,027 | ..... |
| In any form, Canada | 9,954 | 10,572 |
| Mexico | 67,231 | 17,750 |

Primary producers used 3,083 tons, or 10 percent, and foundries, fabricators and other consumers took 4,375 tons, or 14 percent. Calculated aluminum recovery totaled 23,949 tons: 17,363 tons from new scrap and 65,856 from old scrap and sweated pig.

The bureau estimates that full coverage of the industry would show a total scrap consumption 36,000 tons and secondary ingot production of 2,000 tons. Calculated aluminum recovery on that basis would total 28,000 tons, Mines notes.

## Nonferrous Metals

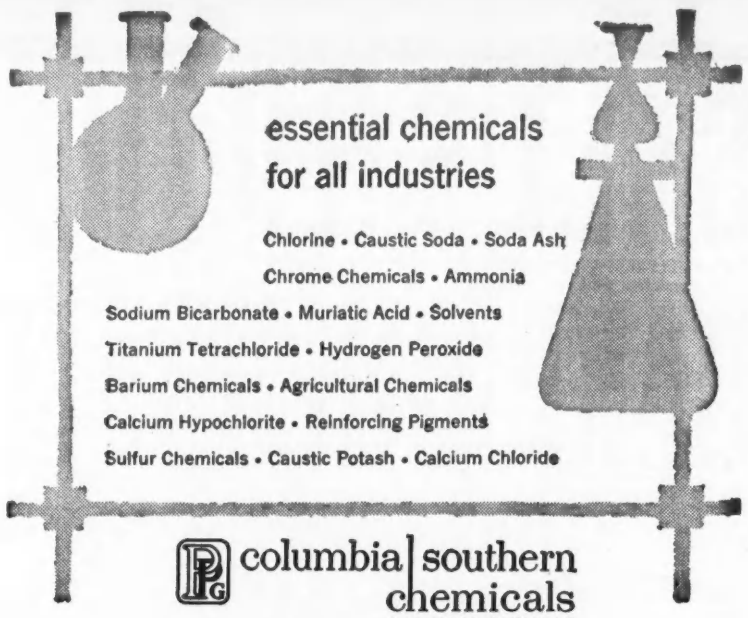
**Copper**—Purchased copper-base scrap consumed in the US totaled 88,100 tons in May, virtually unchanged from April, the Bureau of Mines reports.

Brass ingot production rose 11 percent and output of refined copper by secondary smelters gained 9 percent. Brass-mill products increased 11 percent. Production of refined copper by primary producers using secondary materials advanced 7 percent.

**Fluorspar** — Production of fluorspar from domestic mines in the first quarter

### *Paper Production Higher*

The American Paper & Pulp Association reported paper production for the week ended Sept. 2 at 90.3 percent of theoretical capacity, as compared with the revised figure of 91.4 percent for the previous week and 90.1 percent for the corresponding week of last year.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## Heavy Chemicals

totaled 152,988 short tons, the Bureau of Mines reports. Processing by fluorspar mills totaled 133,346 tons of crude, from which 50,424 tons of finished fluorspar was recovered.

**Magnesium**—Net shipments of magnesium mill products during June amounted to 1,700,000 pounds, 6 percent below May's shipments of 1,815,000 pounds, the Bureau of Census reports. Shipments in June a year ago were 1,726,000 pounds, Census notes.

**Tin**—Under the impact of GSA's request for authorization to sell 50,000 tons of stockpiled tin, prices in world markets dropped sharply. Straits metal closed in New York at $1.22 a pound, off 3c. from a week earlier.

### Heavy Chemical Briefs

**ALUMINUM CHLORIDE PLANT:** The anhydrous aluminum chloride plant discussed in last week's heavy chemicals market is located in Gettysburg, Pa.—not in Painesville, Ohio as reported. Owner of the plant is Hercules Alclor Company, with headquarters in Painesville.

**GOV'T FLUORSPAR PROGRAM:** Problems of producing hydrofluoric acid or cryolite from low-grade siliceous fluorspar ores will be included in the minerals research programs of the Bureau of Mines scheduled for fiscal 1962. Research will be conducted at the bureau's metallurgy centers in Albany, Ore., and Tuscaloosa, Ala.

**SILVER, LEAD, BARITE:** Large scale exploration for deposits of these minerals in Nova Scotia will be undertaken by Gunnex, Ltd., one of Canada's major uranium producers, and Lehman Bros., well known New York investment house. About 66,000 acres will be explored during a two-year period.


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## PHS International Post To Heart Institute Man

Dr. James Watt, who has been director of the National Heart Institute since 1952, was named head of the Public Health Service's international activities by Surgeon General Luther L. Terry last week.

Dr. Watt's successor will be Dr. Ralph Knutti, presently associate director of the National Institute of Arthritis & Metabolic Diseases.

In addition to directing the Service's Division of International Health, Dr. Watt will be the Surgeon General's chief assistant and counsellor on international health affairs.

He also will be responsible for coordinating the diverse and rapidly increasing Public Health Service programs on the international scene and for relating service programs to other federal and worldwide activities in the health field.

## *Drug Industry Wage Poser*

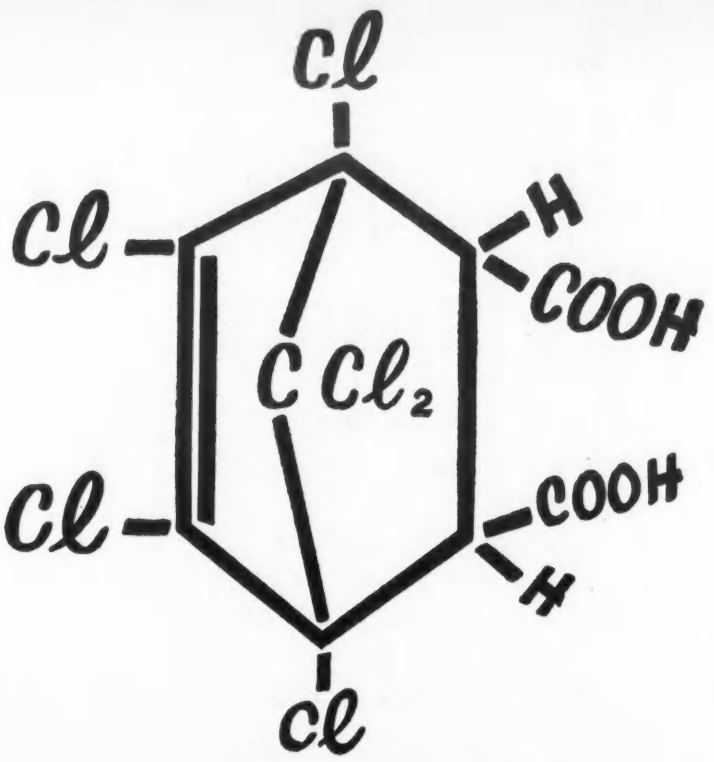
*—Continued from page 5*

the industry that pays its production workers less than this amount. Heavy penalties are placed on contractors who might try to evade the law.

Secretary Goldberg has called a public hearing in Washington for October 17 to consider the question. Interested persons are invited to participate in the hearing and furnish data showing minimum wages paid in the industry, the number of workers paid the minimum rates, the extent of competition among plants in different geographic areas, the adequacy of the proposed determination of the industry and the changes in minimum wages since March, 1961.

The importance of the latter date stems from the fact that in preparation for determining the prevailing minimum, the Bureau of Labor Statistics conducted a survey in the drugs and medicines industry of the number of firms in the industry, the number of workers employed, the number being paid various wage rates, etc., as of last March.

According to the survey, the industry employed a total of about 95,000 workers in 467 establishments having ten or more employees. Government purchases of the industry's products amount to approximately $46 million annually.

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## FMC Would Like to Sell $30 Million Worth of Bonds

FMC Corporation has filed a registration statement with the Securities & Exchange Commission covering the proposed issuance of $30 million worth of bonds for expansion purposes.

The debenture funds are required for additional working capital and plant facilities in the enlargement of the company's chemical, defense, machinery and international activities and operations, FMC officials say.

Terms of the proposed conversion have not been completed, but the total common stock to be reserved for this purpose is not expected to exceed approximately 4 percent of common shares now outstanding.

## *Pesticides Market Growth*

*—Continued from page 7*

acres will require similar long-range control programs, according to the report.

Sales of pest control products in Canada during the twelve months ended September 30, 1960, were valued at $28.2 million, up 6.7 percent over $26.4 million reported for the previous year, BDSA notes.

Imports, principally from the US, accounted for about half of the total sales.

A breakdown of the sales total by group, with the previous year in parentheses, follows:

- Agricultural dusts and sprays, $10.3 million ($10 million).
- Livestock treatments, $1.9 million ($1.8 million).
- Herbicides, $8.7 million ($7.9 million).
- Household and industrial insecticides, $6 million ($5.6 million).
- Rodenticides, $532,351 ($465,923); and unspecified uses, $604,708 ($505,661).

Local production of pesticides is slated to increase substantially with start-up of two new plants, but not so as to reduce the country's import requirements.

Already under way is construction of a complex at Saskatoon, Saskatchewan, to produce the herbicides 2,4-D and MCPA. The facility is being built by Interprovincial Cooperatives, Ltd., of Winnipeg.

The second stage of an industrial chemical operation in Manitoba has been completed with construction of a $250,000 copper sulfate plant at Hanscona, six miles from Winnipeg.

The first phase, a sulfuric acid plant, was started up in 1960, and a third related chemical plant is planned for the future. The copper sulfate unit is expected to achieve an annual production of 6 million pounds.

Local pesticide production in 1959 was valued at $12.2 million, up from $10 million the year before and $9 million in 1957, according to BDSA's records.


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## *Current Market Quotations*

*—Continued from page 34*

| | | |
|---|---|---|
| Zinc oxide, USP, 50 lb.-dms., c.l., frt. alld. | lb. | .15¾- — |
| 50 lb.-dms., l.c.l., 10 tons or more, same basis | lb. | .16¼- — |
| 50 lb.-dms., l.c.l., smaller lots, same basis | lb. | .16¾- — |
| Zinc phenolsulfonate, NF, gran., dms | lb. | .45 - .46 |
| NF, powd., dms. | lb. | .48 - .49 |
| Zinc resinate, precip, 7.2-7.6% Zn., dms., frt. alld. | lb. | .45 - — |
| Zinc silicofluoride dms. works | lb. | .12½- .14 |
| Zinc stearate, USP, ctns., c.l. | lb. | .41 - — |
| | lb. | .41 - — |
| ctns., l.c.l. | lb. | .42 - .46 |
| Zinc sulfate, powd., monohydrate, 36% Zn, bgs., c.l., dlvd.E. | 100 lbs. | 8.00 - — |
| bgs., l.c.l., dlvd. E. | 100 lbs. | 9.00 - — |
| Zinc sulfate in bbls 40c higher. | | |
| Zinc undecylenate, 75-lb. fib. dms., f.o.b. works | lb. | 2.04 - — |
| Zinc, yellow (see Zinc chromate) | | |
| Zinc-ammonium chloride, bgs., c.l., works | 100 lbs. | 10.25 - — |
| bbls., c.l., works | 200 lbs. | 10.85 - — |
| bbls., l.c.l., works | 100 lbs. | 11.35 - — |
| Zinc-formaldehyde sulfoxylate, basic, 300-lb dms., frt. alld | lb. | .26 - — |
| Normal, 250-lb. dms., frt. alld | lb. | .55 - — |
| bgs., 5 tons to c.l., works | lb. | .03⅜- — |
| Zircon (G) gran., bgs., 5 tons to c.l., works | lb. | .03⅜- — |
| bgs., 1 ton to 9,999-lb. lots, works | lb. | .04 - — |
| bgs., smaller lots, works | lb. | .06½- — |
| Zircon (G) milled, bgs., c.l., works. | lb. | .04¼- — |
| bgs., 5 tons to c.l., works | lb. | .04⅜- — |
| bgs., 1 ton to 9,999-lb. lots, works | lb. | .04⅝- — |
| bgs., 500-1,999-lb. lots, works | lb. | .07½- — |
| Zircon (G) in barrels 1c. higher. | | |
| Zirconium acetate soln., 13% $ZrO_2$, dms., c.l., 30,000 lbs. min., works | lb. | .23 - — |
| Zirconium hydride, powd., electronic grade, dms., works | lb. | 14.00 -15.00 |
| Zirconium oxide, CP, white, grd., bbls. or bgs., works | lb. | 1.50 - — |
| Electric-fused lump, bgs., 500 to 1,999-lb. lots, works | lb. | .48¼- — |
| bgs., smaller lots, works | lb. | .51 - — |
| milled, bgs., c.l., works | lb. | .62 - — |
| bgs., 5-ton lots, works | lb. | .62¼- — |
| bgs., 1-ton to 9,999-lb. lots, works | lb. | .63½- — |
| bgs., 500 to 1,999-lb. lots, works | lb. | .64 - — |
| bgs., smaller lots, works | lb. | .66 - — |
| Glass polishing grade, 94-97% $ZrO_2$, bgs., works | lb. | .55 - .65 |
| Opacifier grade, 85-90% $ZrO_2$, bgs., | lb. | .27 - .50 |
| Stabilized oxide, 91% $ZrO_2$, milled, bgs | lb. | .62 - .85 |
| Zirconium oxychloride, cryst., ctns., 5-ton lots, works | lb. | .37½- — |


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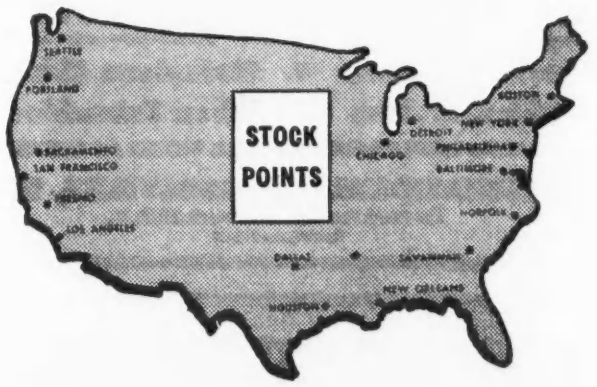


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## *Aliphatic Organics*

# Ethylene Forward Integration Seen As Capacity, Demand Shifts Threaten

Forward integration by Gulf Coast ethylene merchants may be a coming trend. Certainly, there are incentives enough. The area's overall in-place capacity already represents a surplus and new facilities are planned or in the works. Meanwhile, there exists the distinct threat that more and more new ethylene production is going to be pressured into locating in the East and Midwest, close to ultimate consumer markets. Partially-idle facilities, which might result from this capacity build-up and demand shift, an ethylene marketer says, would undoubtedly make us think hard of what we ourselves could do to protect the return on our investment.

Any weakening in ethylene prices would, of course, spur merchants' plans to get into production of more profitable end-chemicals. However, no decline is expected momentarily, despite a recent, unsubstantiated report that sales were being made under the reported range of 5 cents to 5¼ cents a pound, delivered.

**Pricing Lacks Uniformity**

There is a complete lack of uniformity in ethylene pricing because practically are business is contracted. It is known, though, that low purity (98.5 to 99 percent) product, which is used in the manufacture of ethylene oxide and ethyl alcohol, sells at approximately ¼ cent to ½ cent under the polymerization grade. Furthermore, that some spot sales are made, and, perhaps, at below the normal level.

Installed ethylene capacity in the US will hit 7 billion pounds by month's end, predicated on the scheduled completion of an expansion program in the Gulf area and the debut of a new producer in the East, which together will account for an additional 400 million pounds.

The 7-billion figure, which represents an increase of about one billion pounds over the industry's output potential in the first quarter of '61, may surprise some trade people whose estimates have run as much as 500 million pounds lower. The discrepancy, however, is quite easily explained.

An existing ethylene facility can be readily expanded with an extra cracking furnace or two, and one or more producers, it's believed, have added new units within the past year without making any general announcement of an expansion.

Ethylene marketing—looking at either the present or potential setup—is as complex a subject as the intricate network of pipeline that connects buyers' and sellers' plants in a concentrated area along the Gulf coast. Here, they are, strictly speaking, only three merchant producers whose combined capacity exceeds one billion pounds.

**Merchants Three**

The largest of the three firms has approximately 425 million pounds; the second, whose first facility and currently the world's largest came on stream in mid-July, has 380 million, and the third has 265 million.

There are, in addition, two producers who fit into the "primarily merchant" category. Allowing for their captive requirements—polyethylene and ethyl alcohol, respectively—the one has 425 million pounds available for sale, the other an estimated 420 million.

Toting up the five figures, one gets a grand total of 1.9 billion pounds for merchant capacity along the Gulf. This is equivalent, however, to only two-thirds of 1960 ethylene sales of 3.25 billion, and indicates, in turn, the amount of open-market business done by producers who are themselves large captive consumers.

With users doubling as sellers, it's extremely difficult to interpret official statistics with any known degree of accuracy. For example, a 349-million-pound rise in production last year was matched by a 311-million-pound increase in sales, but it is impossible to conclude that merchants were the major benefactors.

Although merchants could be denied new business by back-integration by some ethylene users and expansions by captive consumers who are also sellers, they will, of course, be able to maintain the status quo. They are protected by long-term contracts—some of these are now running out for one big producer—and to an even greater extent by the economics of ethylene production.

An ethylene consumer's requirement, for example, must be in the vicinity of 400 million pounds annually before he can seriously consider back-integrating, spokesman for one of the merchants says. Secondly, he adds, the firm must have a ready, cheap source of feedstock, and, third, capital to invest. The third requisite, it's believed, will in itself discourage some thoughts of ethylene ventures.

Forward integration, it seems, is a greater threat to ethylene off-takers than back integration is to the basics. But what really concerns both segments of the trade in the Gulf area is an anticipated capacity build-up in the East.

Several factors argue against such a development; among them, fuel cost, land values and inadequate underground storage. Nothing, though, can dispel the threat that ethylene producers—present or potential—are going to be lured into the East—and to a lesser extent, the Midwest—by users who want raw material in close proximity to their plants and major, ultimate consumer markets.

**Price Trends**

**Advanced**
None

**Reduced**
None

**Comparative Price Indexes**
(100=1949 average)

| Last week | Prev. week | Last month | Sept. 9, 1960 |
|---|---|---|---|
| 130.02 | 130.02 | 130.10 | 131.20 |

*For Current Prices See Page* 11

**Adipic Acid**—Prices for adipic acid have been cut 3¼c. a pound, to 29c. a pound in car- or truckload lots. The initiator of the reduction said the lower schedule is expected to accelerate the trend toward use of adipic as a chemical intermediate.

Several market observers interpreted the move a bit differently, however. They felt the 10 percent price cut was related to the anticipated debut of a new producer.

Others saw an indirect connection to the rayon-nylon contest for supremacy in the tire-cord market and the intra-trade dispute of nylon 6 and nylon 66 manufacturers.

The major outlet for adipic is nylon 66, to which an estimated 290 million pounds of the acid were channeled in 1960. This is equivalent to about 75 percent of total adipic capacity currently.

Now, with adipic cheaper, nylon 66 can obviously compete more vigorously with nylon 6.

**Butyl Acetate**—Outshipments of butyl acetate, a traditionally large-volume chemical export, amounted to 6,158,930 pounds in July, up substantially from June.

Of total shipments valued at $706,585, the largest single quantity went to the Netherlands (5,156,281 pounds, valued at $564,888). Other buyers were: Brazil, Mexico, India, New Zealand, Taiwan, Hong Kong, Philippine Republic, Chile, Peru, Venezuela, and Colombia.

The Netherlands also purchased 3,472,262 pounds of butyl alcohol in July. Total butanol exports the same month were 5,150,117 pounds, valued at $591,867.

**Glycerine**—Production of crude and synthetic glycerine in July was 18.7 million pounds, while output of all grades of refined was 18.6 million. Compared with June, volume was off, respectively, 15.8 and 7.9 percent.

Despite the sharp cutback, however, stocks at month's end were only 100,000 pounds below producers' factory and warehouse inventories thirty days earlier, according to statistics compiled by the Glycerine Producers Association.

**Trichloroethylene**—August 29, a leading producer announced a price advance for trichloroethylene and a few days later, a competitor indicated that it intended to follow the somewhat unexpected move.

Under new schedules, which go into ef-

## Aliphatic Organics

fect on October 1, the tankcar price of 12c. a pound and the drum car- or truckload price is 13¼c. a pound, on a delivered basis.

The ¾c. a pound increase follows a reduction of 1½c. a pound last December. At that time, reportedly, competition among the domestic trade and with importers was exceptionally keen, apparently demanding the stabilizing effect of a substantial price drop. The situation was also complicated by recession-impeded demand.

Besides the fact that trichloroethylene prices have been what some trade people call "unrealistically low," no other explanation was immediately available for the upcoming price increase.

It is generally felt, however, that with business improving — especially in such large consuming areas as autos and aircraft—requirements for the metal-degreasing solvent will be appreciably greater this fall than last—thus easing competitive pressures.

There are also indications that European suppliers of US trichlor importers will also boost prices. And, of course, with the higher domestic price, the tariff will be raised accordingly.

So as far as domestic producers are concerned, imports should be no more of a threat than they have been to date. For their part, importers will probably maintain the established differential between their price and the domestic schedule, and continue to bring in a normal volume of trichlor.


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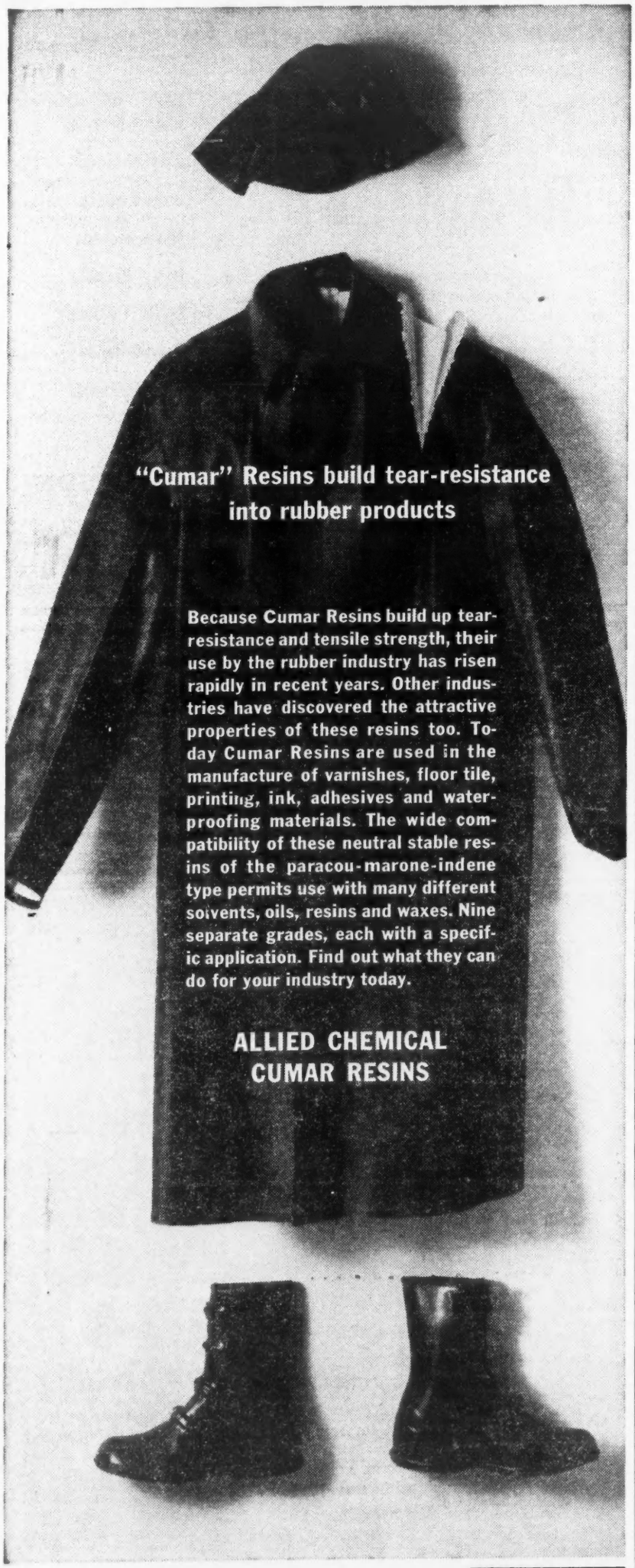
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# Coal Chemicals

Potential petroleum naphthalene capacity bounded past the half-billion pound mark last week with the announcement of a major oil company's plans to build a 50-million-pound-a-year plant at its East Chicago, Ill., refinery. Total announced capacity of all projected petroleum naphthalene plants, plus the one operating unit, is now 525 million pounds, only 125 million pounds shy of total coke oven capacity. The newly-announced naphthalene facility will be the first constructed in the midwest. Output has already been contracted for by a major chemical producer according to the oil company. Start-up is slated for mid-1962.

In the markets, supply/demand characteristics for all chemicals are relatively unchanged.

Benzene is in good demand with supplies ample to meet needs; Japan continues to take US cresylic acid in heavy volume; phenol demand is on the upswing; tar acid oil output moved down in July; acetanilide is reported in average demand; bisphenol-a continues to be absorbed by strong epoxy production; diphenylguanidine volume is rising; phthalic is still plagued by close buying habits; and styrene is moving upward from August's reduced sales.

Aniline price reduction on September 1 triggered price studies in aniline derived chemicals, sources report. As of press time Friday no changes were made, however.

Continuing to rise, steel production fortnight ago was up fractionally.

Production in the week ended September 2 was 2,030,000 net tons, a climb of 0.5 percent from the preceding week.

Based on assumed 1961 steel capacity, rate of production was 70 percent.

Output for the year continues to gain on last year's production. Through September 2 steel production was 15.8 percent behind output in the comparable 35 week period of 1960, as against 17.9 percent behind in the preceding week.

## Basic Products

**Benzene**—Demand is well sustained report trade sources.

Ample supply of benzene is available as well as the other light oils, toluene and xylene.

Benzene price is firm at 31c. a gallon.

**Cresylic Acid**—Japan continues to be the top customer for US exports.

Of the 2,098,844 pounds of cresols and cresylic acid exported in July, over half—1,053,753 pounds valued at $148,657—was destined for Japan.

**Phenol**—Expanding demand is reported by trade sources.

Increased activity is the result of increased resin business and not the recently reduced prices according to observers.

One major producer reports his non-captive phenol sales are up 30 to 40 percent over volume last year and predicts good business for the balance of the year.

Exports of phenol in July were 3,782,208 pounds, up approximately 900,000 pounds from June. Value of July's shipments was $446,832.

Shipments through July ran about 5.2 million pounds below exports in the same period last year.

Major shipments in July were made to:

Netherlands—2,493,750 pounds valued at $259,350.

Canada—305,679 pounds valued at $51,578.

Finland—165,550 pounds valued at $18,692.

**Tar Acid Oil**—Production of tar acid oil dipped 1.3 percent in July.

A total of 2,405,079 gallons was produced in July, some 30,000 gallons less than in June.

### Price Trends

**Advanced**
None

**Reduced**
None

**Comparative Price Indexes**
(100=1949 average)

| Last week | Prev. week | Last month | Sept. 9, 1960 |
|---|---|---|---|
| 119.85 | 119.85 | 119.86 | 118.28 |

*For Current Prices See Page* 11

Through July total production of tar acid oil was 15,547,229 gallons, approximately 3,160,000 gallons less than in the same period last year.

Sales in July took a 31.1 percent drop, down to 2,043,674 gallons from June's 2,967,982 gallons.

In the first seven months this year sales of tar acid oil amounted to 14,749,958 gallons as against 18,475,100 gallons in the same period 1st year.

## Intermediates

**Acetanilide**—Demand is deemed average by one major producer.

While consumption has held up rather well in the past few years, at least one end-use area has decreased. That would be in the production of pharmaceuticals.

Last year 2,321,000 pounds of acetanilide were produced. Sales, according to the Tariff Commission, were 1,792,000 pounds valued at $541,000, or a unit value of 30c.

Recent aniline price reduction has as yet had no effect on acetanilide quotations.

Current bulk price of acetanilide, technical grade, flaked, in bbls. or bags, carlot amounts, freight allowed, is 32½c.

**Bisphenol-A**—Finding its major application in resins, BPA is currently moving along in good volume.

Epoxies continue to take the major portion of production.

Polycarbonates are predicted to be the next growth market for BPA consumption but as yet results have not entirely matched expectations according to trade sources.

Last month's phenol reduction has not changed BPA prices.

Trade sources report price firm at 30½c. in bags, carlots, truckloads, single shipment, 70,000 pounds or more; 31c. for less than 70,000 pounds, and less carload and truckload price at 32½c.

**Diphenylguanidine** — Demand for this accelerator has been increasing steadily over volume achieved in the first half.

Prices are unchanged despite the recent aniline reduction. Producers are understood to be studying the price question although there is no indication as yet whether a reduction will be made or not.

Other major accelerators and antioxidants are proceeding at a sales pace matching rubber consumption.

Rubber companies are reported placing orders in routine volume apparently disregarding the current auto contract dispute.

Rubber volume is down 12 percent from last year, however, and this has had an effect of course on rubber chemicals volume.

**Phthalic Anhydride**—Producers say consumers are still tending to a close buying policy.

Material is readily available so that

### Cokeoven Output: July

The following statistics indicate production of selected coal chemicals as reported to the Bureau of Mines by cokeoven plant operators. Benzene statistics do not include motor benzol. All figures are reported in gallons.

| | *July* 1961 | *July* 1960 | *First Seven Months* 1961 | *First Seven Months* 1960 |
|---|---|---|---|---|
| Benzene, nitration | 6,980,942 | 7,118,900 | 44,776,346 | 68,567,900 |
| Industrial pure | 2,490,580 | 2,164,500 | 18,006,099 | 23,181,400 |
| Industrial 90 and other | 434,438 | 88,900 | 943,897 | 1,184,000 |
| Coaltar, crude | 52,736,515 | 48,932,400 | 336,508,355 | 460,122,700 |
| Chemical oil crude (tar acid oil) | 2,405,079 | 2,191,400 | 15,547,229 | 18,706,800 |
| Solvent naphtha, crude and refined | 406,327 | 330,300 | 2,419,094 | 3,127,000 |
| Toluene nitration | 1,959,728 | 1,773,000 | 12,667,828 | 16,568,700 |
| Industrial pure | 561,952 | 504,400 | 3,407,450 | 3,960,100 |
| Xylene, all grades | 563,206 | 662,600 | 4,322,877 | 5,026,200 |

## Coal Chemicals

consumers are letting producers carry the inventory for them.

Pick up in demand, expected after Labor Day, has not yet materialized.

Producers attribute consumer hesitancy to the prolonged auto contract talks.

When a settlement is reached, sources claim, demand will accelerate.

**Styrene Monomer** — After a dismal August in which one major producer reported business off about 20 percent, September styrene volume is recovering rapidly and promises to be an excellent sales month.

Most consumers are reported making heavy commitments for September delivery.

Polyester producers seem to be the main exception.

They're reported optimistic but as yet haven't backed up their convictions with orders.

The unsettled auto contract bargaining is said to be the reason for their hesitancy.

It's assumed that once bargaining is completed, and the threat of strikes dissipated, that polyester people will get back into the market in a big way.

Styrene price is firm, sources say, and the upcoming escalation change due October 1 will be a minor one if there's any change at all.

### Coal Chemicals

Estimated output of coal chemicals recovered from cokeoven operations during the week ended September 2, were as follows:

| | | |
|---|---|---|
| Ammonia liquor | lbs. | 606,201 |
| Ammonium sulfate | lbs. | 25,850,233 |
| Benzene | gals. | 2,794,400 |
| Coaltar | gals. | 14,047,038 |
| Crude chemical oil | gals. | 550,024 |
| Solvent naphtha | gals. | 91,665 |
| Toluene | gals. | 603,006 |
| Xylene | gals. | 171,876 |

## *DuPont-GM: Relief on Way*

*—Continued from page 3*

leave it a free hand as to the method of unloading its GM stock.

The proposed judgment was filed with the Federal District Court in Chicago in compliance with a Supreme Court order to submit a divestiture plan by September 5.

DuPont had previously indicated that it would not make a direct distribution of General Motors shares to its stockholders unless the present law is changed so as to soften the tax blow.

In omitting a specific divestiture scheme, duPont's proposal would permit it to follow through on a planned three-method approach which could be varied as circumstances warranted.

As outlined by president Crawford Greenewalt before the house committee last fortnight, duPont's plan would work this way:

About 15 million shares would be distributed to stockholders in lieu of cash dividends; another 10 million shares would be offered in exchange for outstanding duPont stock, and 35 million shares would be sold publicly.

Mr. Greenewalt made it clear, however, that the company would prefer a tax relief measure that would permit direct distribution.

The company plan submitted last week stipulates that divestiture be started within ninety days of the effective date of the judgment and that it be completed within a ten-year period.

Other provisions of the proposal include a ban against the acquisition of additional shares by duPont, and prohibit the company from voting any GM shares during the divestiture period. The voting rights would be passed on to duPont stockholders.

In addition, provision is made for the court to retain jurisdiction of the case "to permit any party to the proceeding to apply for further orders or directions or for modification of the judgment, and for any further findings or orders that might be necessary" under any change in tax regulations.

## *Tin Short But Prices Drop*

*—Continued from page 4*

the administrator in concurrence with other interested departments and agencies."

It is added by GSA that disposal of the pig tin "will be undertaken in an orderly manner with due regard to protection of producers, processors and consumers against avoidable disruption of usual markets as well as for the protection of the government against avoidable losses."

Under provisions of the US law, no sale of the tin can be made until after the lapse of six months from the date of announcement of the intended sale, unless congress should waive the six months rule and permit earlier disposal of the material.

Because the material has been declared "excess" to national needs rather than obsolete by reason of available substitutes, affirmative action must be taken on the proposal by congress before any sale can be made.

GSA has been disposing of a quantity of tin for the past several weeks, but this is from a different supply. This is tin that came into the hands of GSA when the Texas City smelter was discontinued and disposed of.

These tin inventories, amounting to about 4,000 long tons, were never placed in the national stockpile, but were maintained under a separate account.

So far the agency has sold about 1,350 tons of this tin accumulation and now has an invitation outstanding to sell an additional 1,000 tons. Bids for purchase of this tin will be received by agency until tomorrow (September 12).


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| | |
|---|---|
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| Nitrobenzene | 2 p.p.m. Max. |
| Freezing Point (dry) | –6.20°C. Min. |
| Color | |
| % Transmission | 95% Min. |
| APHA Scale | 100 Max. |

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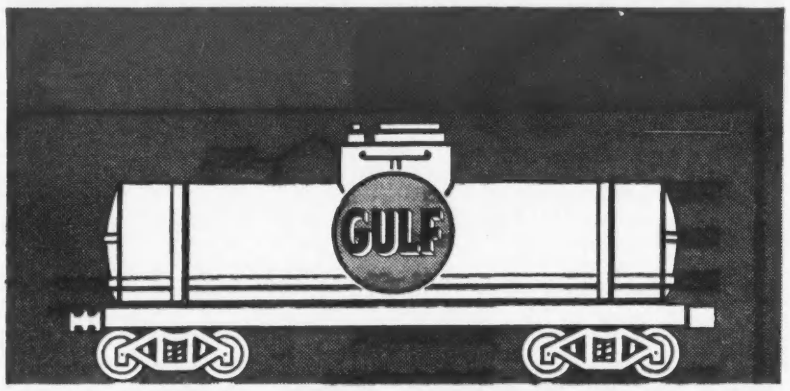


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## Ohio Oil Forms New Unit To Stress Petrochemicals

Ohio Oil Company is beefing up its petrochemical effort. The company last week established a new chemical products development division and announced plans for a substantial increase in facilities at its Denver, Colo., research center.

W. H. Barlow, who has been elected a vice-president, will be in overall charge of the company's chemicals, planning and research organization.

### *Corn Starch Producers*

*—Continued from page 5*

to Viet Nam to construct a tapioca starch plant without prior investigation to determine the competitive effect on domestic starches used by US paper and textile producers.

He cited government figures showing that imports of foreign tapioca starch rose from 67 million pounds in 1953 to 280 million pounds last year. Well over 300 million pounds of starch will come in this year, he predicted. Tapioca starch enters duty free.

### *Chemical Exports Do a Flip*

*—Continued from page 7*

of about 3 percent over the annual rate of $19,298 million for the same period last year.

Imports of general merchandise on the seasonally adjusted basis moved up 16 percent from June to $1,371.4 million in July, and on an unadjusted basis, 4 percent to a total of $1,267.8 million over the comparable June total. Increases were reported in six of the eleven major commodity classifications.

For the first seven months period, imports were at an annual rate of $14 billion, about 8 percent below the annual rate of $15,138 million a year ago.

**ESSO VICE-PRESIDENT:** Robert O. Goodykoontz, general manager of Humble Oil & Refining Company's central region, who on January 1 becomes vice-president in charge of the Esso Standard, eastern region of Humble, in New York.


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## Agricultural Chemicals

# Insects Used as Herbicidal Agents; Biological Pest Control Role Seen

Use of beetles to control weeds infesting California ranch land was reported last week at the Pacific Science Congress held at the University of Hawaii. James K. Holloway of the US Department of Agriculture reported that an imported beetle introduced to California in 1944 had reduced the incidence of the Klamath weed to 1 percent of its pre-control level. The Klamath weed had invaded the western states from abroad and was on the point of putting many ranchers out of business when the beetle was introduced.

The beetle selected to eradicate the weed is known scientifically as Chrysolina quadrigemina and is described as being metallic green or bronze in color and is native to the south of France. World War II prevented importation of the beetle from France and, as a result, some 5,000 beetles were shipped from Australia. Use of the beetle in a similar program had already beeen underway in that country.

Within five years of its release, the beetle had multiplied so rapidly that 2 million beetles in Humbolt County, California, were collected to be introduced elsewhere. In all some 2.5 million acres of California ranch land were treated. Mr. Holloway also reported that the weed has been reduced in Washington and Oregon.

A specialist in the use of insects for controlling crop pests, Mr. Holloway pointed out that insects and animals were particularly useful where a weed had infiltrated an environment in which its natural enemies were absent. This is said to be true in many of the Pacific islands.

The solution then is to find the homeland of the weed and look there for the insects that through evolution, have learned to pasture on it, Mr. Holloway added.

The use of Chrysolina has lead to the utilization of the same approach in attacking other weeds. In 1953, a gorse seed weevil was released in the West Coast states and in 1959 the cinnabar moth was set free in California. Both insects quickly became established and began feeding on the weeds that are their specialty.

The problem currently under attack, he reported, is the quest for insect enemies of certain water weeds that have infested states of the Gulf of Mexico. The insect needed for this job is being sought in the wetter regions of South America.

### Price Trends

**Advanced**

Potassium muriate, 1c. per unit $K_2O$.

**Reduced**

None

**Comparative Price Indexes**

(100=1949 average)

| Last week | Prev. week | Last month | Sept. 9, 1960 |
|---|---|---|---|
| 110.18 | 110.18 | 110.18 | 111.14 |

*For Current Prices See Page* 11

## Animal and Plant Foods

USDA reports that corn for grain production in 1961 under a program of "no-controls" would have reached a record 4 billion bushels with present conditions of near perfect growing weather.

Instead the 1961 corn crop under the Administration's new feed grain program is expected to be about 650 million bushels lower than the "no-control" estimate.

USDA points out that the 1961 growing season has had near perfect weather conditions in the major producing areas. This factor, together with the upward trend in fertilizer application per acre and the closer plant spacing, has raised the estimated yield per acre for corn by three bushels for 1961 over 1960.

Preliminary reports of fertilizer use indicate, however, that overall use of fertilizer is down, USDA reports.

The trend in fertilizer use per acre has shown a dramatic increase over the past few years, adds USDA. Between 1954 and 1959, nitrogen use per acre increased about two-thirds, phosphorus use rose 50 percent while potash rose by more than one-fourth.

Pakistan will be in the market later this month and early next month for purchase of about 96,000 metric tons of fertilizers and fertilizer materials.

Small Business Circular No. 61-265 issued by the International Cooperation Administration lists these contemplated purchases and opening bid dates:

September 21, 40,000 tons of urea; September 25, 20,000 tons of triple superphosphate; September 26, 16,000 tons of potassium muriate and October 5, an additional 20,000 tons of urea.

Detailed specifications may be obtained from Miss Elinor Renwick, Embassy of Pakistan, Office of Commercial Secretary, 2315 Massachusetts Ave., N.W., Washington 8, D. C.

**Ammonia**—Fertilizer grade ammonia is currently at a discounted price of $84 a on and is scheduled to return to its seasonal price of $92 a ton.

**Phosphate Rock**—Revised figures by the Bureau of Mines discloses that apparent consumption of phosphate rock in this country in 1960 was one percent greater than in 1959. Mine production and marketable output were 10 percent larger.

Imports of phosphate rock decreased 8 percent, but exports established a new record and were 35 percent higher than in 1959. The value of 1959 exports was at $20.4 million compared to $26.6 million in exports in 1960.

Mine production in 1959 was reported at 49,249,000 tons. This increased to 54,338,000 tons in 1960. Four years earlier production was placed at 52,198,000 tons, reports the Bureau of Mines.

**Potash** — September 1 saw potassium muriate prices move up one cent per unit $K_2O$ to 36 cents per unit for standard material and 39 cents a unit for granular. Bagged granular is now at $28.40 per ton. On contracts made after June 30, 1961 there is an additional charge of 2 cents per unit $K_2O$ or $1.20 per ton on bagged shipments.

**Urea**—After a summer-long skirmish to boost urea listings, producers reluctantly adopted a seasonal discount policy on agricultural grade urea. Basic quotation for urea is $87.25 per ton on an f.o.b. basis, and is scheduled to be boosted to $91.25 a ton for Otcober through December.

### Pesticides Output

Following are production statistics reported by the Tariff Commission representing the number of pounds of certain pesticides produced during June, 1961, with May production figures supplied for comparison:

| | Pounds | |
|---|---|---|
| | May 1961 | June 1961 |
| DDT | 15,785,835 | 14,690,475 |
| 2, 4D | 4,320,953 | 3,876,062 |
| Ester & Salts | 2,757,256 | 2,592,260 |
| Acid equivalent | 2,039,398 | 1,927,913 |
| BHC | 2,550,827 | 1,663,900 |
| Gamma isomer | 825,005 | 597,037 |
| 2,4,5-T | 685,229 | 591,855 |

## Agricultural Chemical Briefs

**MEXICAN FERTILIZER:** Fertilizantes del Istmo has begun operation of the first unit of its new chemical complex in Minatitlan, Vera Cruz, described as being the "most modern in the world." The plant will turn out such products as fertilizers, urea, and urea crystals based on primary materials provided by the government oil agency, Petroleos Mexicanos from the refinery in Minatitlan, Vera Cruz.

**"THIODAN" APPROVED:** New label claims for the use of "Thiodan" insecticide on sugar beets have been accepted by USDA. Niagara Chemical Division of Food & Machinery Corp., Middleport, N.Y., reports that the chemical can now be used to control two pests of economic significance to sugar beet growers—webworm and green peach aphid. "Thiodan" is described as a broad spectrum insecticide with long residual activity.

## Trade Name Chemicals

# Cellulosic Cross-Linkers Seen Nearing Volume of 60 Million Lbs.

Sales of chemical cross-linking agents for producing wash and wear finishes on cotton and rayon fabrics are fast approaching 60 million pounds per year, double the estimated consumption of 1959. Of a total yardage of over 10 billion in the cotton industry last year, it is estimated that 1.9 billion yards were treated for wash and wear qualities and it's expected that expansion of this treatment within the next few years will bring the total up to over four billion yards.

But while wash-wear shirts, trousers, dress goods, blouses, jackets, drapes, bedspreads and slip covers are widely used, there is no one resin finish that has been able to corner a lion's share of the market. This steady growth in acceptance of "easy care" cottons and rayons and the great growth potential held for chemicals in this area of the textile industry has touched off a battle for supremacy, among chemical producers of cellulose cross-linkers, which is only now beginning to heat up.

According to Francis K. Burr, senior research associate, Fabric Research Laboratories, Inc., Dedham, Mass., the most promising single contender in the field for the sixties will come from a host of chemical cross-linkers for cellulose fibers either now available or in the process of development.

**New Cross-Linkers Sought**

Speaking before the Division of Chemical Marketing and Economics of the American Chemical Society in Chicago last week, Mr. Burr pointed out that the whole crux of the matter lies in finding the best chemical cross-linking agent that achieves high fabric performance ratings with minimum adverse effects on the fabric's wearing qualities.

Mr. Burr divides the wash and wear fabric field into two parts, the first involving the new synthetic fibers which have built-in wash and wear characteristics and the second, the field of cellulosic fibers (cotton and rayon). The latter fibers, comprising over 70 percent of the total fiber market, have to be modified by chemical treatment to yield wash and wear properties.

Mr. Burr reports that the hottest item in wash-wear at the present time appears to be work with the derivatives of divinyl sulfone. Some penetration of the field has already been noted with products based on divinyl sulfone chemistry, he says, and for white cottons they are direct competitors of the "Belfast" process and the triazone products.

Historically, wash-wear treatment started with the use of a urea-formaldehyde finish on rayon, where it was applied more for shrinkage control than for wrinkle resistance.

Application of the U-F finish to cotton caused severe losses in tensile strength and it was not until the melamine-formaldehyde finish was developed in the late 1940's that wrinkle-proofing experiments on cotton were accomplished. The melamine formaldehyde finish for cotton was considerably less detrimental to tensile strength, but showed a tendency to yellow and was therefor suitable only for colored goods.

**DMEU Use Levels Off**

The development of dimethylol ethylene urea about five years ago brought another improvement in durability and, in addition, made possible the use of a top finish on white shirtings.

Some sources estimates that DMEU is still the biggest item of commerce for cotton wash and wear today, although loss of tensile strength after a period of rugged washings and the fact that it has been supplanted to a large degree in the white goods area by the triazones has caused the market to level off. Other advantages of DMEU are that it is a highly efficient cross-linker and is moderate in price.

The most recent trend has been to a combined finish which would give wet and dry wrinkle resistance, water repellency, shrinkage control and spot and stain resistance. But some compromise in properties is usually required.

The "Belfast" finish, based on epichlorohydrin chemistry and introduced by Deering Milliken Inc., provides a means of producing wet wrinkle resistance in cotton goods as it is being laundered.

**WASH AND WEAR SALES POTENTIAL**

**Resins . . . .*60.0 million lbs.**
**Catalysts . .*12.0 million lbs.**
**Softeners. .*12.0 million lbs.**

**Total . .*84.0 million lbs.**

***Estimate**

However, this does not protect the fabric from dry wrinkling as would be encountered in wearing or in tumble drying.

It's estimated that the majority of fabrics which claim a "Belfast" finish have also been processed with conventional cross-linking agents for dry wrinkle recovery. These finishes are reported very effective, but costs are driven up by use of more wrinkle-proofing chemicals.

American Cyanamid Company, whose "Aerotex" tradename has been associated with textile cross-linking agents for many years, has two products in development which will feature both wet and dry wrinkle resistance. Although tests to date have been highly satisfactory, the company says more definitive information on these products will not be available until later this year or early '62.

Wash and wear market areas where chemical makers hope for deeper penetration in the future include work clothes, cotton knitwear and bed sheets. In end-use categories where it is now applicable, it is reported that penetration of the wash and wear approach has exceeded 50 percent.

**Patterned Knitwear Gaining**

Cotton knitwear, which has intrinsic wash-wear properties, is being processed with cross-linking chemicals for shrinkage control. This makes possible a wider and more intricate range of patterns than is possible with untreated goods. Also, knitters are able to change their patterns more easily and economically than are other textile makers. Heartening to chemical producers is the fact that resin add-on for cotton knitwear is heavier than the usual seven percent in other operations.

The vast area of work clothes has been virtually untouched due to the fact that the primary requisite of work clothes is that they be tough and durable. Should someone come up with a resin treatment which would maintain high standards of abrasion resistance and produce fabrics which resist soiling, this could become a big volume market.

Wrinkle resistant bed sheets have been tried and were not successful. However, it's still regarded as a good bet despite contour sheets and the fact that some people still choose to work over their sheets with a flatiron.

Interest has been rising in formaldehyde as a cross-linking chemical for cotton since the introduction of the "Prestwick" process by Courtaulds, Ltd., about two years ago.

As a low cost cross-linker, most observers agree that formaldehyde could run away with the market should it be found applicable on cotton and more effective ways be found for its application.

## Trade Name Briefs

**DETERGENTS:** Rohm & Haas Company has reduced the price of "Triton X-200" 1½c. a pound. New tankcar price is 25½c.; truckload of drums, 27½c.; and less than truckload lots, 28½c. a pound, f.o.b., Philadelphia.

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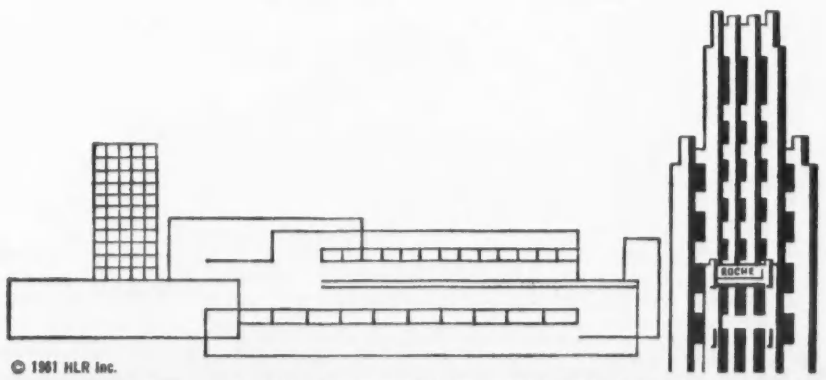


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PURITY—QUALITY

# Drugs, Fine Chemicals

Vitamin A prices were cut last week in the latest of a series of reductions that, since August 1, have established lower schedules for ascorbic acid, calcium pantothenate, erythrobic acid, niacin, pyridoxine hydrochloride, sodium ascorbate, and thiamine. But while all the changes excepting those for the "C" chemicals merely brought quotations into the general vicinity of actual markets and provoked little more than a ho-hum, the drop in "A" prices was a decided reduction and not generally expected in trade circles.

The schedule announced late last Thursday, which is retroactive to August 8, lists base prices of 7 cents per million units for liquid forms and 9½ cents per million units for dry forms. Previous quotes were, respectively, 9½ cents and 13 cents.

The extent of the cut is better seen, perhaps, in a comparison of kilo lot prices past and present. For example, against the former $65, dry vitamin A acetate, of 500,000 A units per gram, is now quoted at $47.50 a kilo. The differential between kilo and less than kilo lots remains at $2.50, however.

Competitors of the initiating firm were admittedly surprised not only by the fact of the reduction but also by its size. Several trade sources said they were in the dark as to a reason for such substantial cuts because all indications were that the market was reasonably stable at existing levels.

Historically, spokesman for one marketer said, a price reduction has occurred about once each year, as increased production brought about a subsequent decline in operating costs.

This explanation is a valid one, for in announcing the price cut a leading maker noted that its new "A" plant, which was brought on stream about a year ago, has, in fact, reduced costs significantly. The firm also mentioned that when it introduced the vitamin in 1950, the price was 30 cents per million units.

Other producers of the vitamin are expected to meet the lower schedule, though by presstime on Friday, only one had reported positive action.

**Ascorbic Acid**—Ascorbic acid prices were cut last fortnight—according to the initiator of the reduction, the fourth within a ten-month period, for competitive reasons.

The 15c. reduction, coupled with a 45c. drop the preceding week, established the schedule at $5.75 a kilo for 100-kilo lots and at $6 a kilo for smaller drum quantities.

The lower schedule, some observers figured, might be an attempt to discourage a new "C" producer. They reasoned that an additional 20 million pounds of sorbitol will be available within a year which could serve as raw material for more ascorbic production.

The sorbitol facility is to be located in the Midwest, near a large segment of the pharmaceutical industry which is not now manufacturing "C" and near, as well, to major consumers of the vitamin in the food and beverage business.

July exports were 31.773 pounds, valued at $104.609. On the buyers' roster: Canada 12.250 pounds, valued at $30.856; Philippine Republic 4.272 pounds, valued at $20.612; and Belgium $4,137 pounds, valued at $15.512.

**Cortisone** — July exports of cortisone were valued at $253.288, up from $229,666 in June. Largest shipments, based on reported worth, went to: Bermuda $87,510; Argentina $24.000; Panama $23,349, and Venezuela $22.908.

The same month, exports of hydrocortisone were valued at $139.952, down from $453,922 in June. On the buyer's roster, according to the Commerce department, were: France $45,000; The Netherlands $12,200; Japan $11,730; Hong Kong $10,704; Panama $10.606 and Bermuda $9.470.

Prices for both steroids are currently quoted at 85c. a gram for 5-kilo lots, and at 90c. a gram for smaller quantities. These levels, established several weeks ago and reported today to be firm, are the result of a persistently weak market.

**Prednisolone**—Exports of prednisolone in July were valued at $906,474, down from $1,069,190 in June, the Commerce department reports. Major buyers were: Mexico $160,092; Columbia $72,645; Switzerland $64,652; Bermuda $44,439; Belgium $43,963, and Panama $43,963.

The same month, exports of prednisone were valued at $192,708. Large shipments went to Panama ($130,771) and Belgium ($18,570).

**Saccharin**—Imports of saccharin, at 36,428 pounds in May, dropped to 16,024 pounds in June. According to the Commerce department, the entire shipment was valued at $24,637 and dutied at $5,110. Japan was the sole supplier.

With imports pretty much confined to the west coast and inland transportation costs sufficiently high to discourage shipment of much of this material eastward, the local market is thought to be reasonably stable at the higher prices posted last Spring.

Another firming influence, perhaps, is the recent shutdown of cyclamates production by a one-time major manufacturer. Competitive sweeteners, the cyclamates have not grown as rapidly as was originally anticipated.

**Sulfa Drugs**—US production of sulfa drugs, at 334,256 pounds in May, rose to 353,917 pounds in June. And the following month, exports were more than double the preceding month's volume, and equivalent to about two-thirds of domestic output.

According to just-issued statistics from the Commerce department, July exports amounted to 188,646 pounds, valued at $75,707. Totals for the three categories were: sulfathiazole, 17,467 pounds, valued at $47,956; sulfadiazine, 25,510 pounds, valued at $72,279; and sulfonamide drugs not specifically classified, 145,669 pounds, valued at $732,192.

Domestic requirements are expected to pick up shortly in advance of the heavy-use winter season.

**Vitamin $B_{12}$**—Exports of vitamin $B_{12}$ in July were valued at $174,368, the Commerce department reports. Volume was not disclosed, as is customary in those cases where to do so would be to indicate the operations of a producer.

Based on value, the largest shipments

### Price Trends

**Advanced**
None

**Reduced**
None

**Comparative Price Indexes**
(100=1949 average)

| Last week | Prev. week | Last month | Sept. 9, 1960 |
|---|---|---|---|
| 58.88 | 58.88 | 59.27 | 59.93 |

*For Current Prices See Page 11*

### Drug and Fine Chemical Exports: July

Exports of selected drugs and fine chemicals for the months of June and July, 1961, as reported by the Bureau of Census, were as follows:

| | | *July* | *June* |
|---|---|---|---|
| Analgesics and antipyretics | lbs. | 61,961 | 72,392 |
| Antibiotics, bulk & dosage, forms, n.e.c. | gms. | 19,779,671 | 12,866,965 |
| Ascorbic acid | lbs. | 31,773 | 47,182 |
| Aspirin | lbs. | 124,749 | 49,993 |
| B-Complex (excluding $B_1$ and $B_{12}$) | lbs. | 28,809 | 38,540 |
| Bacitracin | 100-million-units | 2.625 | 7.060 |
| Dihydrostreptomycin, bulk | gms. | 10,207,462 | 6,725,102 |
| Pectain and preparations | lbs. | 81,584 | 78,884 |
| Penicillin, bulk | billion units | 11,761,776 | 6,381,339 |
| Streptomycin, all forms | gms. | 3,379,975 | 3,650,638 |
| Sulfa Drugs | lbs. | 188,646 | 75,707 |
| Thiamine | lbs. | 853 | 7,082 |
| Vitamin A bulk, medicinal | lbs. | 10,904 | 8,409 |
| Vitamins, bulk, n.e.c.* | lbs. | 41,021 | 74,805 |

* Not elsewhere classfied by the Census bureau.


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## Drugs, Fine Chemicals

went to The Netherlands ($119,873), Bermuda ($19,272), Brazil ($17,485), and Viet Nam ($4,807).

Domestic market for $B_{12}$ is said to be relatively stable at price levels established several months ago, following a series of sharp price cuts.

## Botanicals

**Tonka Beans**—Tonka bean imports in 1960 totaled 590,335 pounds, valued at $607,276. Origins of this material: Trinidad, 499,590 pounds, valued at $539,515; Venezuela, 45,661 pounds, valued at $34,036; and Brazil, 45,084 pounds, valued at $33,725. Average per pound prices were, respectively, $1.07, 74c., and 74c.

Imports for the first four months of 1961 totaled 366,131 pounds, valued at $364,269. In the comparable period of '60, inshipments amounted to 58,280 pounds and $52,232.

**Wild Cherry Bark**—Demand is good and coupled with the fact that collections were not overly large this year, prices are likely to go higher shortly. Midwinter, the quote stood at 30c., 8c. higher than the current posting.

**Witch Hazel Leaves**—Among domestic botanicals, this is one of the strongest markets. Not only is demand good but supplies are tightening already as consumers contract for anticipated requirements.

The quote already shows strength, having been posted at 35c. a pound when new crop was first received and later advancing to 40c.

## Drug, Fine Chemical Briefs

**DATA AVAILABLE:** Robeco Chemicals, Inc., has just completed studies showing the ability of their product "Robane" to accelerate horny layer penetration as well as percutaneous penetration of the skin. Technical data sheets are available from the firm at 25 East 26th street, New York 10.

**RESEARCHERS TO MEET:** Researchers in the National Institute of Mental Health's program on early clinical evaluation of psychiatric drugs will meet for an exchange of ideas and review on October 16 and 17 in Bethesda, Md. Pharmaceutical manufacturers, not yet asked to attend, may request an invitation from Dr. Jonathan O. Cole, chief, Psychopharmocology Service Center, National Institute of Mental Health, Bethesda 14, Md.

## *Sen. Kefauver Riding Again*

*—Continued from page 3*

dous volume of evidence of identical bidding on public contracts that had been turned over to it at the senator's request by government procurement agencies.

Assistant Attorney General Lee Loevinger, in charge of the antitrust division of the Department of Justice, refused to be drawn into a discussion of the senator's proposal at this time, although he said the matter of evidence and burden of proof are among the big problems of antitrust law enforcement. Conspiracies are by their very nature private and secret, he pointed out, and difficult to uncover.

One of the bills on which the hearings were held deals specifically with the matter of identical biddings.

It is S 2255 and requires bidders on government contracts, who have submitted bids identical to those of their competitors during the preceding two years, to submit certificates that their bids were arrived at independently and without collusion.

A similar bill has already been reported to the house.

**A Raft of Other Bills**

Other bills are:

S 996 authorizing the courts to deprive antitrust law violators of their corporate offices for periods up to one year.

S 2252 to increase the general limits on monetary penalties under the Sherman act with heavier fines and jail sentences for certain second offenders.

S 2253 providing for heavier fines and jail sentences for criminal convictions of price fixing and division of markets.

S 2254 broadening the responsibility of corporate officials to prevent violations of the antitrust laws by their corporations.

Mr. Loevinger endorsed each of the bills for the department, with the exception of S 2253, because this proposes to increase the penalties only for violations of section 1 of the Sherman act.

He said it does not follow that violations of the law's other provisions may not be equally reprehensible and there appears to be no reason for singling out section 1 offenses for an increase in fines.

As to the other bills, he said that they have in common the salutary purpose of emphasizing individual responsibility for corporate activity and "they appear likely to deter antitrust violation, and to that extent are highly desirable."

He added, however, that the department has made other recommendations for changes in antitrust laws that are still pending before the congressional committees, and he hoped these recommendations would not be shunted aside in favor of simply increasing the penalties for antitrust law violations. Increasing the severity of punishment does not aid in detection and apprehension of violators, Mr. Loevinger said.

## *Chemical Reactions*

*—Continued from page 5*

analytical methods. Use of chromatography, for instance, will expand greatly in the next few years.

Also seen are the development of commercial processes from these specific areas of analytical chemistry: polarography, titrations in non-aqueous solvents and pyrolytic reactions.

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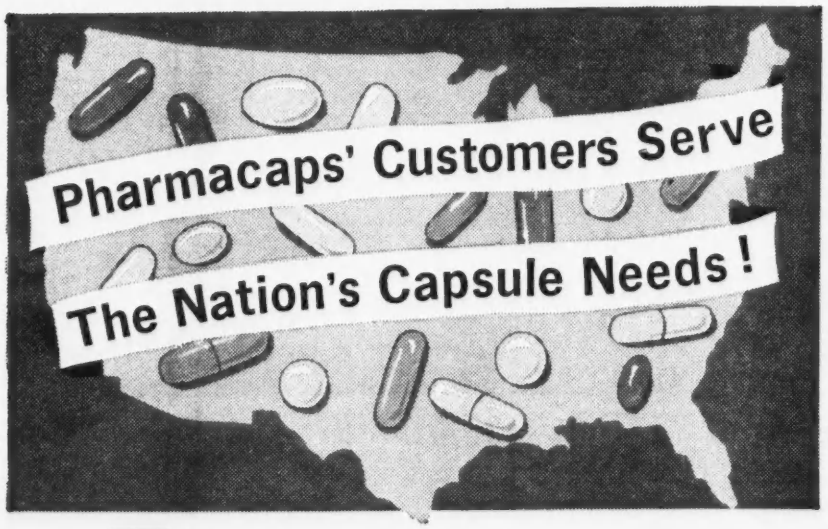


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## Obituaries

### Philip Chaleyer

Philip Chaleyer, former head of P. H. Chaleyer, Inc., perfumes and essential oils, died September 7 in Greenport, N. Y. He was sixty-six years old.

Before forming his own company in 1928, Mr. Chaleyer was associated with Givaudan-Delawanna, Inc., in Europe and in this country. He sold his company in 1953 and had since served as a consultant to Hoffmann-LaRoche, Inc., of Nutley, N. J., and Rhodia, Inc., of New York.

### Dr. Leonard W. Doolan

Dr. Leonard W. Doolan, manager of the lubricants supply department of Tidewater Oil Company's eastern division, died September 3 in Scotch Plains, N. J. He was fifty-four years old.

Dr. Doolan, associated with Tidewater for more than twenty-five years, was on the eastern division's council of executives at the time of his death.

**John R. Freeman,** retired vice-president in charge of research at Anaconda-American Brass Company, died September 3 in Middlebury, Conn. He was sixty-five years old.

**Malcolm C. Moore,** manager of the technical personnel development section of Hercules Powder Company's personnel department at Wilmington, Del., died September 1 in that city. He was sixty years old.

**Ragnvald M. Naley,** vice-president of Aluminium, Ltd., Sales, Inc., died September 6 in Centerport, N. Y. He was fifty-nine years old.

## *Rx Inserts to Up Drug Costs*

*—Continued from page 5*

tion. Member firms want to do everything that is practicable to ensure that physicians have all the information needed to use prescription drugs with maximum safety and efficacy. Industry's disagreement with FDA is with respect to the waste and dangers involved.

The association contends that "additional expenses connected with printing and handling inserts, running into millions of dollars, will result from the FDA requirement and, of course, in the long run will increase the cost of medication.

"Little—if any, benefit will be achieved because the practicing physicians, for whom the product information is intended, seldom sees the package of medicine which he has prescribed.

FDA's answer to the complaint is that "furnishing reliable information for the professional use of prescription drugs in the package will constitute only a small fraction of the cost of promotion."

PMA also expresses concern regarding the availability of drug information to the patient into whose hands the package insert may sometimes fall.

It is is pointed out that this material is in the technical language of the medical profession and is not intended for interpretation by others than the physician.

FDA also has an answer to this complaint—reliance upon the pharmacists' professional responsibility to dispense drugs in accordance with the prescribed instructions.

"The use of package inserts will not affect the prohibition against unauthorized dispensing," Commissioner Larrick maintains.

PMA hopes that the problems it sees can be overcome and notes that "one practical proposal for doing this has been advanced by the American Medical Association."

AMA is actively working on a plan for greatly expanding its facilities for disseminating drug information to the medical profession.

"This approach would, in our opinion," says PMA, "more effectively accomplish the objective of drug administration with maximum safety and effectiveness, which is the goal of all individuals and groups concerned with the proper use of drugs."

**Larrick on AMA Plan**

Commissioner Larrick indicates that FDA expects the AMA plan will be a helpful adjunct to the new regulation, stating that "exemption from the package insert requirement may be considered when other reliable sources of the same information became established."

He cautions, however, that this will not relieve the manufacturer of his legal responsibility for labeling with adequate information for safe and effective use by the licensed physician.

Meanwhile, the American Pharmaceutical Association makes it clear it is flatly against the promotion and advertising of prescription drugs and calls upon pharmacists to intensify efforts to combat this practice.

J. Warren Lansdowne, president of APhA, warns that serious health consequences could result from such commercial practices which have the obvious purpose of stimulating sales.

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## *Rubber Molecule Cracked*

—*Continued from page 4*

can be made "extremely resistant to ozone cracking and weathering and has a generally well balanced set of physical properties."

EPR, as it is called, has the bounce of natural rubber, the wear of general purpose styrene-butadiene rubbers and the ozone resistance of butyl, according to US Rubber.

The new rubber is now being produced at the company's chemical plant in Naugatuck, Conn. An additional facility is under construction at Baton Rouge, La.

Development of synthetic balata is expected to free industry from dependence on the natural product, which is bled from trees in South America—a difficult and expensive operation.

The substance is a moderately hard, tough, crystalline thermoplastic material known by the chemical name of trans 1,4-polyisoprene.

Vinylpyridine synthetic rubber is "extremely resistant to abrasion and gives higher performance with the addition of certain inorganic chemicals," it was said. Suggested end-uses are tire treads and conveyor belts.

A new synthetic rubber derived from butadiene, having a "remarkably" regular molecular structure, and the catalytic agent that makes the synthesis possible, were described in a paper presented to the symposium by Firestone Tire & Rubber Company.

Key to the new rubber was said to be the catalyst—diethylaluminum chloride-cobalt chloride. This catalyst reportedly has made possible the development of the first geometrically uniform polybutadiene molecule.

In other papers read before the symposium:

• Goodyear Tire & Rubber Company reported "a revolutionary new synthetic rubber, which will provide 35 percent more tread mileage and eventually may nearly double tire life."

Goodyear said that "Butene" will go into production next month at the company's new Beaumont, Tex., plant.

The material, now available for customer sampling, is recommended as a supplementary material in SBR formulation.

• Hercules Powder Company reported significant progress in vulcanizing ethylene-propylene copolymer rubber. Behind the progress, a spokesman said, was the use of new coagents—quinone dioxime and divinyl adipate."

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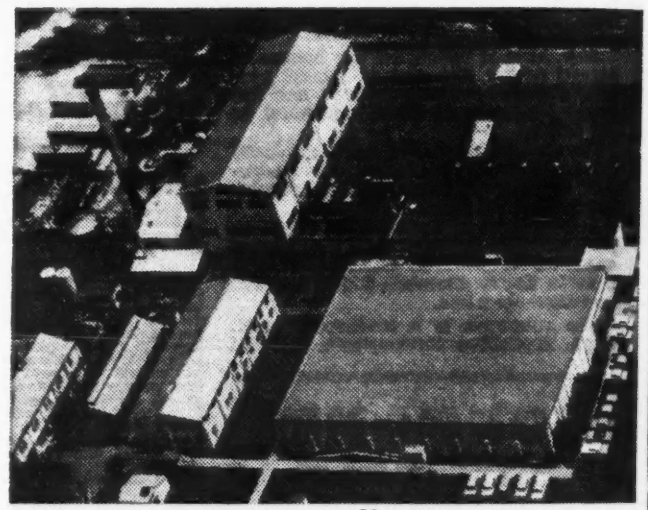
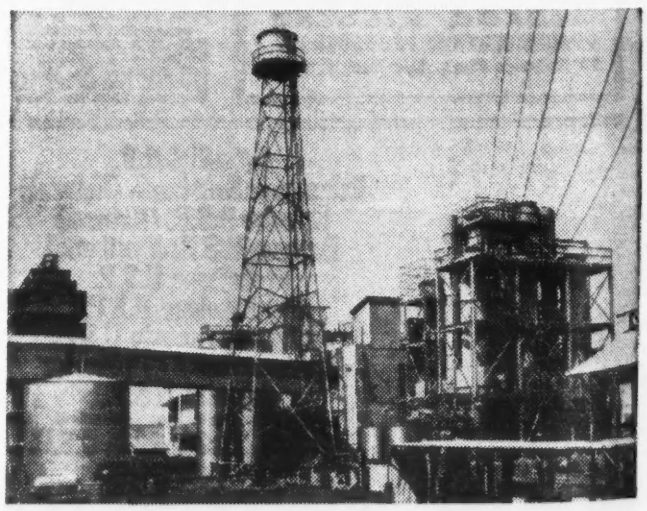


**Florida SUN-FILLED citrus oils** are produced at 3 Minute Maid plants — Plymouth (shown above), Auburndale and Leesburg, Florida.



**California SUN-FILLED citrus oils** are produced at Minute Maid's Golden Citrus plant at Anaheim, California.

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# Essential Oils, Aromatics

Two price cuts were posted, but the overall tone of the essential oils was that of firmness. A number of reasons were put forth for this strength—ranging all the way from a drop in the percentage of pulegone in the pennyroyal to the bad effects of the Berlin situation on the price of Formosan citronella oil. Cubeb oil dropped 25 cents per pound and lemongrass oil dropped 15 cents per pound.

Reports from source indicate that the pennyroyal crop is smaller than usual and that the content of pulegone, which is sometimes as high as 95 percent in Moroccan pennyroyal, has dropped considerably due possibly to drought and early cutting. Shippers of Formosan citronella oil are reportedly taking advantage of the Berlin crisis to hold on to their citronella oil, which is said to be in peak production at the present time.

Some estimators say that, based on the amount of sandalwood sold at the July auction, the spot price could go even higher than it is now. If this takes place, it will put some sandalwood users in a tight position and possibly cause them to start using more and more of the various synthetic sandalwoods that are freely available at reasonable prices.

Essential oil and aromatic chemical dealers report that sales continue high to manufacturers of Christmas toiletry items.

California lemon continues scarce on spot. Both peppermint and spearmint continue at their previous listings with spearmint expected to weaken when large quantities of new crop material become available. Total production of spearmint has been estimated by the Crop Reporting Board of the US Department of Agriculture to be 1,429,000 pounds this year as compared with 1960's crop of 1,037,000 pounds.

### Price Trends

**Advanced**
None

**Reduced**
Cubeb, 25c. per lb.
Lemongrass, 15c. per lb.

**Comparative Price Indexes**
(100=1949 average)

| Last week | Prev. week | Last month | Sept. 9, 1960 |
|---|---|---|---|
| 143.39 | 143.44 | 143.47 | 145.54 |

*For Current Prices See Page* 11

## Essential Oils

**Cardamon**—Reports indicates that the market is firming.

**Celery Seed**—The price continues to range between $12 and $14 per pound.

**Citronella**—This is the heavy production season in Formosa, but offerings are comparatively small.

It seems that some buyers, wary of the Berlin crisis, wanted to stock up on citronella oil now that it is being produced in good quantity.

But the Formosans reasoned that if demand was that strong, they would wait until it got stronger in hopes of upping their prices.

Spot prices remain unchanged.

**Cubeb**—A survey of the essential oil dealers in the New York area indicates that the price of cubeb has dropped from its previous price, $8.75 per pound, to $8.50 per pound.

**Ginger**—The low of the range continues at $12 per pound, but some dealers report they have raised their prices—some as high as $14 per pound.

**Lavandin**—The market is quite firm. The OPD prices, however, remain in effect. The 22 to 24 percent is still available in some quarters for $1.15 per pound although many dealers are getting $1.40 per pound for their material.

**Lemongrass**—There is still very little material on spot, but prices have dropped. From the previous listing, $2.75 per pound, material has come down to $2.60 per pound.

Figures compiled by New York importers indicate that the amount of material exported from Cochin, India, during the period between May and July of last year, is substantially less that that exported during the same time last year.

This year Cochin sent 260 metric tons to the United States during that period and last year, they shipped 329 metric tons of material.

A good deal of the world's lemongrass is cultivated for its high content of citral. From citral, beta ionone is made. Beta ionone has been found to occur in nature in the essential oil derived from Bononia megastigma Nees, but its chief source is citral.

Citral is also found in oils of Java-type citronella, sassafras leaf, lemon, mandarin, verbena, geranium, ginger, lime, Japanese cinnamon, bay, basil, lavendar, sweet orange, rose, and lemongrass.

India is the principal world supplier of lemongrass.

According to Dr. J. R. Parikh, lemongrass (Cymbopogon flexuosus) is cultivated extensively in the Indian state of Kerala. After it has been cut, the grass is packed in a copper still containing water. Distillation is on a cottage industry scale.

The oil is separated from the distillate which consists of oil and water.

Dr. Parikh estimates that roughly 1,100 tons of oil was produced in India during the year 1959-60. Other essential oil experts have estimated that world production in 1958 was roughly 1,500 tons. Other producing areas are Kenya, Tanganyika, Republic of the Congo, Angola, Equatorial Africa, Madagascar, Comoro Islands, Guatemala, Honduras, Dominican Republic, Haiti, Jamaica, Puerto Rico, Argentina, Dutch Guiana, Brazil, Formosa, Indochina, Indonesia, Malaya.

India exports lemongrass oil to the United States, the Soviet Union and to Europe.

The citral content of Indian lemongrass oil, according to Dr. Parikh, ranges between 75 and 85 percent. Reaction of citral with acetone under alkaline conditions leads to an oily intermediate product known as pseudoionone.

When this pseudoionone is treated with acid, a mixture of alpha and beta-ionones is produced—the relative proportions of the isomers being dependent upon the acid used and on the temperature during cyclization. With sulphuric acid the main product is beta-ionone, while with phosphoric or formic acid, it is alpha-ionone.

Both alpha and beta-ionones are used in synthetic perfumes, but the alpha isomer has a somewhat sweeter odor which resembles violets. Usually a mixture of the alpha and beta form is used. Dr. Parikh said that it was not until the chemical structure of vitamin A was established and found to contain the beta-ionone ring system, that pure beta-ionone assumed such a great importance.

The first reported synthesis of vitamin A which confirmed its chemical structure, started with beta-ionone, and although synthetic routes employing other starting material have since been reported, all of the present-day synthetic vitamin A made commercially has beta-ionone as one of the major starting materials.

**Pennyroyal**—Many essential oil dealers report that they are having difficulty getting imported pennyroyal oil. The low of the OPD range continues at $2.35 per pound, but some dealers are getting as much as $2.80 for their material.

From source comes the word that the current crop is not as large as usual, but more important that that, the pulegone content of the material now being distilled is much lower than usual.

It is not known definitely as yet, but probably responsible for the drop in the content of pulegone is early cutting and drought.

In a normal year the pulecone content of Moroccan pennyroyal oil is as high as 96 percent. Other pennyroyal grown in such places as Italy, Yugoslavia and Turkey contains from 50 to 60 percent pulegone.

The principal use of pennyroyal oil is as a starting material for the production of synthetic menthol from the pulegone. This use is more widespread on the Continent than it is here in the United States.

The oil is used to a limited extent in

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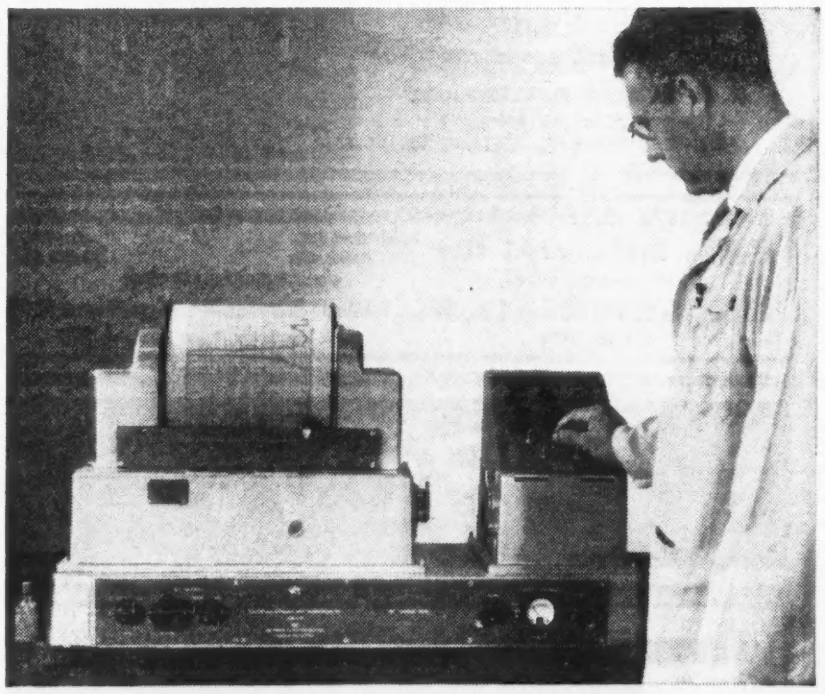

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# Essential Oils

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**Sandalwood**—Prices continue very high with some reports from Mysore indicating the oil may go even higher.

Despite the extremely high prices, one dealers reports the recent sale of 300 pounds of sandalwood oil.

## Seeds and Spices

**Chillies**—Most grades of material remained at their previously-quoted levels: Turkish, 30c. per pound; Uganda, 55c. per pound; Japanese Santaka No. 1, 31½c. per pound; Japanese Hontaka No. 1, 41c. per pound; Japanese birdseye, 60c. per pound; Haiti birdseye, 40c. per pound; Sudan, 50c. per pound; Kenya hot, 50c. per pound and Nigerian Funtuas, 31c per pound.

The price of Congo hot material dropped from 56c. per pound to 55c. per pound.

**Pepper**—Slight advances were noted. Malabar black moved up from 45½c. per pound to 46c. per pound; Lampong black advanced from 45c. per pound to 45¼c. per pound, and Muntok white advanced from 52c. per pound to 53c. per pound.

**Turmeric** — Following some slight weakening, the various grades remain at the same price. Alleppey continues at 22c. per pound, Formosan recleaned continues at 17c. per pound, Haitian continues at 15c. per pound, Jamaican continues at 16½c. per pound and Madras continues at 17½c. per pound.

## *Borax Research: The Key*

*—Continued from page 7*

sider for products on which only limited applications information is available. The two aspects of price and performance are interrelated here but in this preliminary consideration major attention is devoted to the question of performance.

"In the case of sodium hexylene glycol monoborate it was considered that one of the possible uses would be in the control of corrosion.

"From the standpoint of competitive pricing the product appeared attractive on the basis of the fairly low-cost raw materials required. In the case of performance, it could conceivably be fairly unique.

"Inorganic borates have been used for many years for corrosion control purposes as demonstrated by large sales to the antifreeze industry, hydraulic brake fluid industry and others. In non-aqueous systems, however, the inorganic borates were often out of consideration because of solubility factors.

"It was then felt that sodium hexylene glycol monoborate would be a logical organoboron compound to offer corrosion protection to non-aqueous systems.

"Sodium hexylene glycol monoborate is somewhat unique in this respect as it is soluble in non-polar solvents and in the case of water contamination the product will hydrolyze to give soluble products which are also effective in the control of corrosion."

"In this way," the paper concluded, "we expect to integrate forward in upgrading the value of refined boron products and to become more firmly established as a chemical company. We expect to add to this list [of new chemicals] steadily in introducing the widest possible versatility to boron compounds."

### *Current Borate Markets*

| | |
|---|---|
| Glass | 38 percent |
| Porcelain Enamel | 12 percent |
| Herbicides | 8 percent |
| Fertilizers | 4 percent |
| Soaps | 3 percent |
| Adhesives | 3 percent |
| Boron Compounds | 3 percent |
| Antifreeze | 2 percent |
| Insulation & Fireproofing | 2 percent |
| Smelters | 2 percent |
| Drugs, Cosmetics | 1 percent |
| Iron & Steel | 1 percent |
| Electrolytic Condensers | 1 percent |
| Distributors | 10 percent |
| Miscellaneous | 10 percent |
| Total | 100 percent |

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# Coating Materials

Sales of paint, varnish, and lacquer in July equaled the record-setting pace maintained in July of last year, but was 14 percent below the level reported for June, the Census Bureau reports. Production of paint, varnish and lacquer was also down 14 percent compared to the output for the previous month. Actual shipments totaled $155.1 million, while output was placed at 53.3 million gallons.

A 1 cent price increase in polystyrene resins, effective September 15, was announced by one leading producer. General purpose polystyrene crystal, formerly 18 cents a pound in bags, will be priced at 19 cents a pound, delivered. Bulk shipments in hopper cars, formerly 16¾ cents a pound, will be 17¾ cents.

In announcing the increase, a spokesman for the company stated that the increase is made necessary for the health of the total industry and to the advantage of the ultimate consumer.

According to the company, not even polystyrene can grow without strict quality control, the development of new uses and further product improvement.

In other areas of the coatings market, prices were reported to be unchanged from previous weeks. The phthalate plasticizers, despite the 1 to 2 cents a pound reductions posted a few weeks ago, did not improve appreciably in sales, sources report.

Shellac and casein were of limited interest to consumers. Casein prices, unchanged in the last eight weeks did not break out of its routine groove. Consumers' buying was restricted to immediate needs. Argentine casein was being offered at 18¾ cents, with Polish in about the position. Australian casein was unchanged.

Prime pigments listings were uniformly routine. Antimony oxide demand is at good levels, while sales of cobalt oxide, carbon black and the lead pigments held at about average levels.

## Prime Pigments

**Antimony Oxide**—Demand for the oxide for fire-retardant uses in paints and chemicals is reported to be at good levels. Prices are holding at 30c. a pound for carlot quantities throughout the trade.

**Cobalt Oxide**—Market at routine levels with listings reported to be unchanged.

**Lead Pigments**—Total shipments for litharge for the first six months of 1961 totaled 64,488 short tons, with leaded content at 59,801 short tons. This averaged out to be slightly higher than the comparative period in 1960, reports the Bureau of Mines.

Total output for litharge for the six-month period totaled 66,000 short tons. Leaded content was at 61,188 short tons, according to Mines.

Shipments of red lead and mineral orange for the first half of this year totaled 10,630 short tons with a leaded content of 9,600 short tons. Output of red lead and orange in the same period totaled 11,540 short tons. Leaded content placed at 10,406 short tons. Output for the six months was slightly higher than the same period last year but shipments were reported to be slightly lower.

## Lacquer Materials

**Nitrocellulose** — Post-Labor Day demand is about average for this time of the year as furniture coating operations remain on a routine level. Listings are unchanged since mid-year.

**Plasticizers**—With the phthalates 1 to 2c. a pound cheaper in many cases, sources report that there has been no appreciable change in the demand for the esters. The phthalates were reduced two weeks ago on the basis of a lower price on phthalic anhydride.

Output of hibutyl phthalate in June was placed at 1,739,869 pounds, or an increase of about 400,000 pounds over the previous month's total, reports the Tariff Commission.

Production of the dioctyl phthalates (di-n-octyl, di-iso-octyl, di (2-ethylhexyl) phthalates and mixtures) increased by about 200,000 pounds in June. Production in June hit 15,464,213 pounds as opposed to 15,272,121 pounds for the previous month.

Tricresyl phosphate production was placed at 2,529,262 pounds in June. This represents an increase of nearly 1 million pounds over the output reported for May. For that month production was reported at 1,441,303 pounds, according to the Tariff Commissin.

### Price Trends

**Advanced**
None

**Reduced**
None

**Comparative Price Indexes**
(100=1949 average)

| Last week | Prev. week | Last month | Sept. 9, 1960 |
|---|---|---|---|
| 104.69 | 104.69 | 104.71 | 103.13 |

*For Current Prices See Page* 11

## Miscellaneous

**Casein**—Hand-to-mouth buying is reported to be holding activity in the casein market to very quiet levels. For the eighth straight week, prices for all the imported caseins held unchanged.

Argentine casein is in the range of 18¾c. a pound with Polish at the same level. French casein continues to be offered at about 17¾c. with very little interest reported. Australian casein is unchanged and one source reports that the equalization price for Australian casein will probably hold as a result of pressure from other markets.

With the producing season about to get underway in the next few weeks, Argentine casein price seem unlikely to change, sources note. The unsettled international situation has not helped casein sales, and improvement in the casein market may depend on how quickly it is cleared up.

**Shellac**—Market is on the quiet side, with little improvement noted in the sales of industrial shellac. Listings are reported to be unchanged.

**Pine Gum**—The average commercial crude gum price at $33.10 per standard barrel for the week ending August 26 was unchanged from the previous week but was well the $42.50 per barrel reported for the same week last year.

For the week ending Sept. 1, USDA reports that gum naval stores sales totaled 6,053 drum equivalents, compared with 7,486 last week and 5,650 drums the weeks before.

Overall sales of turpentine for the week was reported at 98,465 gallons compared to 76,290 gallons during the previous week. Tank car prices, f.o.b. plant, on the basis of prompt delivery was in the range of 23 to 23¾c. a gallon, mostly 23 to 23⅝c.

## Coating Materials Briefs

**EPOXY RESINS:** Commercial production of a new series of polyepoxide resins, designated "KER Resins," was announced by Koppers Company, Inc., Pittsburgh, Pa. "KER" resins are reported to permit resin formulators and users to vary properties of end products to a greater degree than was previously possible.

The total 1961 market for all epoxy

—*Continued on page* 68

### Coatings Shipments and Output: July

| | Factory Shipments Dollars | | Reported productions Gallons | |
|---|---|---|---|---|
| | July | June | July | June |
| Trade Products, total.... | $99,500,000 | $112,300,000 | 30,200,000 | 34,200,000 |
| Paints and Varnishes.... | 96,600,000 | 109,700,000 | 29,500,000 | 33,500,000 |
| Lacquer ..... | 2,900,000 | 3,100,000 | 700,000 | 700,000 |
| Industries Finishes, total | 55,600,000 | 67,000,000 | 23,700,000 | 28,100,000 |
| Paints and Varnishes.. | 42,400,000 | 50,000,000 | 18,200,000 | 21,100,000 |
| Lacquer ..... | 13,200,000 | 17,000,000 | 5,500,000 | 7,000,000 |
| Overall Total ..... | 155,100,000 | 179,800,000 | 53,900,000 | 62,300,000 |

Total Sales—Jan.-June: $1,144,000,000.


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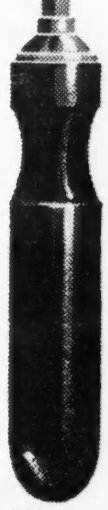

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# Oils, Fats and Waxes

While consumer demand for oils and fats was still confined to prompt needs, there was marked improvement in withdrawals against current contracts. Price changes were few and a steadier tone prevailed throughout the market. Edible vegetable oils remained steady, except soybean oil, which was easier with lower beans. Corn oil was stronger and sold at ½ cent higher. Peanut oil was in light supply and raised ½ cent. Cottonseed oil for nearby delivery remained firm and unchanged, while soybean oil closed slightly lower. Coconut oil was quiet and unchanged.

With trading in tallow and greases limited, the market became easier and all grades were reduced ⅛ cent. Offers were more liberal. Export business was light. Edible tallow was firmer with lard.

Brisk demand was noted for industrial oils against existing contracts. Linseed oil was firmer with the stronger flaxseed market and consumers stepped up demand against former orders. Tung oil was quiet, but firm, reflecting higher cost of government owned oil. Brazilian castor oil was quiet and available at recent decline. Rapeseed oil demand was confined to actual needs. Refined fish oils were in moderate request for immediate delivery. Crude menhaden oil continued quiet.

Weakness persisted in soybean meal, with lower beans. Prices declined $3.50 per ton. Linseed meal was also easier, and dropped $1 per ton. Cottonseed meal was unchanged and nominal for spot delivery. Demand for new crop meal was slow.

### Price Trends

**Advanced**

Carnauba wax, yellow, 1c. to 3c. per lb.
Corn oil, crude, ½c. per lb.
Refd., ½c. per lb.
Lard, cash, 1 20c. per lb.
Peanut oil, crude, ½c. per lb.
Refd., ½c. per lb.
Tallow, edible, ¼c. per lb.

**Reduced**

Copra, $2.50 per ton.
Greases, ¼c. per lb.
Linseed meal, $1 per ton.
Soybean meal, $4 per ton.
Soybean oil, crude, ⅛c. per lb.
Refd., ¼c. per lb.
Tallow, inedible, ¼c per lb.

**Comparative Price Indexes**
(100=1949 average)

| Last week | Prev. week | Last month | Sept. 9, 1960 |
|---|---|---|---|
| 114.54 | 116.10 | 115.48 | 109.87 |

*For Current Prices See Page 11*

## Vegetable Oils

**Castor**—Trading was restricted to actual needs. No. 1 Brazilian was unchanged and available at 17¼c. per pound, tankcars, New York for prompt delivery and No. 3, 16¾c. Domestic grades deliveries were in better request.

GSA has asked congress for permission to dispose of 155,676,000 pounds of castor oil from its stockpile. The disposal plan avoids disruption of commercial markets.

Imports of castor beans and castor oil at New York and Philadelphia last week were as follows:

| | Pounds | |
|---|---|---|
| | Castor Beans | Castor Oil |
| Last week | ..... | 2,290,000 |
| Previous week | ..... | 1,153,000 |
| Corresponding week, 1960 | ..... | 1,916,000 |
| Total this year | ..... | 58,402,000 |
| Corresponding period, 1960 | 3,342,500 | 64,170,000 |

**Coconut**—Trading was slow. Crude oil was offered at 11⅜c. per pound, tankcars, f.o.b. Pacific coast, September delivery and 12½c., sales, New York, prompt.

**Corn**—Crude continued firm and sales were made up to 18c. per pound, tankcars, f.o.b. mills, prompt delivery. Refined oil was held at 21.23c., tankcars, New York basis.

**Cottonseed** — Futures were generally under selling pressure reflecting weaker soybeans market last week. Price trend was downward. Trading was light, the market closing fractionally lower except September oil. No tenders were issued on September delivery to date. Trade interests continued to absorb September oil against sales of March forward. Cash oil remained steady with old crop crude. Refined salad oil ranged from 17c. to 17⅛c. per pound, tankcars, New York, prompt delivery.

Crude oil was scarce and steady with trading at 13¾c. per pound, tankcars, f.o.b. mills for nearby. Second half September was quoted at 13½c. and 12c., October. In the southeast market was nominal at 13⅞c., for immediate and Waco was named at 13¼c.

Pakistan was authorized to purchase about 9,800 tons of cottonseed or soybean oil and Israel 13,000 tons under P.L. 480 last week.

### Cottonseed Oil Futures

Sales and prices of prime summer yellow cottonseed oil futures in tankcars (60,000 pounds) on the N. Y. Produce Exchange for the week ended Friday, September 8, follow:

| | Cents per Pound | | | |
|---|---|---|---|---|
| | Sales | High | Low | Close |
| Sept. | 245 | 15.05 | 14.68 | 14.95@15.00 |
| Oct. | 168 | 14.00 | 13.78 | 13.88 S |
| Dec. | 210 | 13.81 | 13.58 | 13.69 S |
| March | 86 | 13.99 | 13.72 | 13.82@13.84 |
| May | 84 | 14.02 | 13.77 | 13.86 S |
| July | 7 | 13.90 | 13.79 | 13.85@13.88 |

Total sales and switches, 800 contracts.

**Peanut**—Firmer tone prevailed chiefly because of light production. Crude was advanced to 17½c. per pound, tankcars, f.o.b. mills, prompt delivery. Refined oil was quoted at 20¼c., tankcars, New York basis. New crop beans are being harvested and production should start in about 60 days.

**Soybean**—Market was easy and slightly lower. Crude was quoted at 10½c., tankcars f.o.b. mills September delivery. Refined salad was lower at 12.70c., tankcars, New York.

**Tung**—Sales of government owned oil at higher prices stiffened the local market. Tankcars were maintained at 28c. per pound, New York for prompt delivery. Trading was light. Drums were unchanged at 29½c. to 29¾., spot, according to quantity.

Higher prices were paid for government owned tung oil last week. CCC sold 200,000 pounds at 27.58c. to 27.68., bulk, f.o.b. Marrero, La., compared with 27.31c. and 27.55c., the week previous.

## Miscellaneous

**Cocoa Butter**—Demand was reported light. Spot stocks were unchanged at 55c. to 60c. per pound, according to quantity.

**Copra**—Prompt shipment sales were reported at $153.50 per ton, c.i.f. Pacific coast, with offers at $155.

**Flaxseed** — Renewed strength developed in cash flaxseed, reflecting higher futures and bullish reports out of Canada. A few roundlots of 25,000 bushels were traded on to-arrive basis, spot offerings virtually nil. Harvesting of the small crop is making good progess, but holding tendency is pronounced. Bids were up 13c. to $3.65, spot and to-arrive, basis Minneapolis.

## Fats and Greases

**Greases**—Activity in this market was restricted to actual needs. Prices were easier, declining ⅛c. Choice white was maintained at 8¼c. per pound, tankcars, delivered and yellow ranged from 5½c. to 5⅜c., same basis.

**Lard**—Market was firmer. Cash lard was higher at 8.925c. per pound, drums, Chicago.

**Tallow**—Market was quiet and lower. Bleachable fancy was quoted at 5⅞c. per pound, tankcars, delivered; prime, 5⅝c.; special, 5¾c., guaranteed fancy, 6¼c.; and No. 1, 5⅜c. Edible tallow was firmer at 9c., same basis. Export interest lagged. Guaranteed fancy was unchanged at 6¾c., bulk, f.o.b. steamer and drums, sold 7¾c. f.a.s.

## Fish Oils

**Herring**—The 1961 winter herring season ended largely in failure, with a catch of only 74,000 short tons, the smallest in 50 years and much below the 1954-60 average of 800,000 tons, it was reported by the Department of Agriculture. Winter herring fishing off Norway's west coast is nearing the end of a cycle that may be followed by a complete absence of the fish in the area during the next 10 or 20 years, according to Norwegian experts.

In 1960, Norway's import requirements for marine oil were largely met with 45,000 tons of raw herring oil from Iceland. This year, the United States may

be the major supplier of marine oils to Norway. In the first half of 1961, fish oil exports from the United States to Norway totaled 15,640 tons, or double those of 1960.

## Cake and Meal

**Cottonseed Meal**—Demand was fair. Meal, 41 percent on spot was nominal at $65 per ton, sacked, Mississippi Valley and $58 for September. In the southeast $62 was quoted for last half September-October, Alabama-Georgia area.

**Linseed Meal**—Weakness persisted in this market, prices for nearby delivery down $1 while deferred dropped $2. Scattered roundlots of October-December meal were sold at $1 over spot. Modest improvement was noted in cattle feed business, manufacturers covering meal requirements. Market was weak in the face of comparatively tight supply situation in the Northwest. Extracted meal, 34 percent protein, bulk, in carlots, f.o.b., Minneapolis, was lower at $54 a ton for prompt delivery; $54.50, last-half September; $56.50, October-December. Old

—Continued on page 64


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Wholesale price index of crude petroleum and natural gasoline was unchanged in June at 127.2 as against 126.8 in June 1960.

Refined petroleum products price index was 117.0 in June, up from May's 115.0 and 113.5 in June, 1960.

Crude oil production dropped while crude runs to stills increased in the week ended August 25 according to reports received from the industry.

Daily average output of crude, including lease condensate, was 7,054,000 bbls., a decrease of 20,000 b.p.d. from the preceding week.

Daily average crude runs to stills of 8,558,000 bbls. were 219,000 bbls. above the preceding week.

Runs of foreign crude amounted to 1,017,000 bbls. daily, down 34,000 bbls. from the adjusted figure of the preceding week.

### Price Trends

**Advanced**
None

**Reduced**
None

**Comparative Price Indexes**
(100=1949 average)

| Last week | Prev. week | Last month | Sept. 9, 1960 |
|---|---|---|---|
| 104.13 | 104.13 | 104.13 | 103.74 |

*For Current Prices See Page* 11

## Aromatic Solvents

**Benzene** — Demand is well sustained, trade sources report.

Supply is deemed ample with price firm at 31c. a gallon.

Benzene exports rose in July from June's voulme.

Up 215,000 gallons went shipments as 3,350,159 gallons valued at $1,267,142 left US ports for overseas.

Major shipments were made to:

Netherlands — 1,563,115 gallons valued at $625,572 making the Netherlands the top export benzene customer for US suppliers, supplanting Italy which held the lead at the half-year mark.

W. Germany—569,633 gallons valued at $205,178.

UK—510,318 gallons valued at $166,534.

Mexico — 312,941 gallons valued at $135,204.

France — 287,472 gallons valued at $97,840.

Canada — 99,226 gallons valued at $33,738.

**Toluene** — Exports boomed in July to 7,272,322 gallons, up 3.6 million gallons from June's total.

## Aliphatic Solvents

Exports of aliphatic naphtha, mineral spirits, solvent and other light finished aliphatic products totaled 90,813 bbls. in July valued at $854,089. This represents a rise of 22,000 bbls. from June's export volume.

## LPG's

The burgeoning lpg industry scored significant gains in 1960 according to a report released by Bureau of Mines.

Up 7 percent over 1959 went domestic sales of lpg's and ethane to a total of 9,545,000,000 gallons excluding use in gasoline.

Shipments of lpg's for production of gasoline totaled 1,900,000,000 gallons in 1960, up 307 million gallons from 1959.

Exports displayed a 33 percent gain in 1960, rising to 125,500,000 gallons.

Total shipments of lpg's and ethane, including exports and use in gasoline, were 11,570,000,000 gallons, up 9 per cent from 1960.

Percentage changes from 1959 in sales categories follow:

Domestic and commercial—up 7 percent.
Internal combustion—up 1 percent.
Industrial—unchanged.
Refinery fuel—up 15 percent.
Gas manufacturing—down 14 percent.
Chemical—up 20 percent.
Synthetic rubber—up 5 percent.
Secondary recovery—down 77 percent.
All other uses—down 10 percent.

### Crude Oil Stocks Drop

Domestic and foreign crude petroleum stocks at the close of the week ended August 26 were 2,796,000 bbls. lower than at the end of the preceding week.

Week ended Aug. 26—250,869,000 bbls.

Preceding week—253,665,000 bbls.

This decrease comprises a decrease of 2,711,000 bbls. in stocks of domestic crude, and a decrease of 85,000 bbls. of foreign crude.

(Source: Bureau of Mines)

## Waxes

First half results are in on petroleum-derived waxes, and judging from the figures all categories except the most important one, demand, displayed increases from the first half totals of last year.

Production was up to 2,927,000 bbls. during January-June, as against 2,887,000 bbls. last year in the first half.

Demand dipped 22,000 bbls. in the first half this year as compared to last for a total of 2,238,000 bbls.

Stocks boomed upward to 945,000 bbls. in January-June, as compared with 775,000 bbls. in the first half last year.

Exports picked up volume in the first half as 650,000 bbls. left US ports. Last year in the same period 632,000 bbls. were exported.

**Microcyrstalline**—Exports rose approximately 400,000 pounds in July over June's shipments.

Volume for July was 6,143,045 pounds valued at $758,335.

Major shipments were made to:

UK — 1,169,948 pounds valued at $136,135.

Canada — 764,403 pounds valued at $100,599.

France — 670,696 pounds valued at $84,750.

Netherlands—599,727 pounds valued at $70,826.

Japan — 495,026 pounds valued at $85,165.

**Paraffin**—Shipments of paraffin, crude, except fully refined, dropped 3.1 million pounds in July from June's volume.

Total for July was 8,846,917 pounds valued at $455,104.

Major shipments were made to:

Colombia, once again leading the list, with 2,534,917 pounds valued at $140,817 leaving US ports for that country.

Canada — 2,000,017 pounds valued at $93,048.

Mexico — 1,582,574 pounds valued at $67,816.

Brazil — 738,219 pounds valued at $40,511.

Chile—652,750 pounds valued at $37,455.

## Miscellaneous

**Mineral Oil**—To 43 countries on the seven continents went 15,276 bbls. of white oils in July valued at $367,875.

This represents a decline of approximately 4,300 bbls. from June export shipments.

**Petrolatum**—Exports of petrolatum and petroleum jelly rose approximately 800,000 pounds in July when compared to June.

Shipments in July totaled 6,524,862 pounds valued at $524,107.

Major shipments were made to:

Japan — 1,176,103 pounds valued at $83,199.

UK—917,190 pounds valued at $62,433.

Mexico — 532,120 pounds valued at $36,334.

Indonesia—531,600 pounds valued at $42,848.

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ROLLER MILLS—Ross 14" x 32" Hi Speed Ross 4½" x 10".
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CENTRIFUGE—Western State 36", underdriven, bottom discharge, 316 S.S., 2 speed, 10 H.P. XP.

## CHEMICAL PLANT
### EQUIPMENT STILL INSTALLED

Nichols Herreshoff Furnace 54" I.D. 8 hearths. Complete.
1250 gal. S.S. Kettle. Jack. Agit.
2,000 gal. S.S. Tanks. Vert.
Hardinge Ball Mill 5' x 22". Complete.
Oliver Drum Filter 3' x 6' S.S. Complete.
S.S. Rotary Drier 3' x 20'.
Raymond Imp. Mill #40. 40 H.P.

MANY DESIRABLE ITEMS

## PROCESS PLANTS SERVICE, INC.

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## BAKER - PERKINS & DAY
## 5, 50, 100 & 150 GALS.
## DOUBLE ARM MIXERS

## PFAUDLER 10 GAL. GLASS LINED KETTLE

CENTRIFUGALS—12" 30" 40" & 48".
CENTRIFUGES—Sharples #5 & 6 S.S.
DRYERS—Hersey 5' x 26' Rotary Stainless Buffalo 32" x 90" Double Drum Dryer Buffalo Vac. Drum Dryer 24" x 20". Despatch Ovens Elec. Heated. 3—Devine & Stokes Vac. Shelf Dryers.
FILLERS—Powder & Liquid. Also Labelers.
FILTERS—#2 Sweetland Filter. Niagara S.S. Leaf Filter 45.5 sq. ft. Oliver Rot. Vac. Filter 3' x 1'. Hercules Leaf Filter 36" dia. Ertel 6" & 10" Disc type.
FILTER PRESSES—6" to 36" Iron & Wood.
KETTLES—Stainless Jack. 20 to 500 gals. Depp 350 gal. Cast Iron Jack. Vacuum. Devine Impreg. Units 30" & 36" dia. Steel Alum & Copper 5 to 2,000 gals.
MILLS—Day HY-R Speed Mill, 20 HP XP. Raymond #00 Pulverizer 30 HP complete. Also #0000. Mikro Pulverizer #4, 2S1, 2TH, 1SH. Hammer Mills & Pulverizers 3 to 50 HP. Williams #3 & #2XX Hammer Mills. Taylor-Stiles 7½ HP Cutter. Rotary Cutters 1 HP & up. Sprt-Wald Stainless Spike Crusher. Pebble, Jar & Ball Mills, Lab to 6' x 8'. 3 Roll, 9" x 24", 12" x 30", 16" x 40". Lehmann 4 Roll W. C. 12" x 36" Steel.
MIXERS—Baker Perkins 100 gal. Jack. B. P. 15 HP—Masticator Mixer. Day Imperial 75 & 150 gal. Change Can Mixers 8, 15, 40, 80 gal. Day Jumbo 700 gal. horiz. Mixer. Sprout-Waldron 10,000# horiz. Spiral Mixer. Blystone 3000# horiz. spiral Mixer. Day 1000# horiz. Dry ribbon Mixer. Dry Spiral Mixers 50 to 10,000#. Lancaster 6' dia. 25 HP & #1, 3 HP.
PUMPS—Vacuum 10 to 500 CFM. Gould 75 HP Centrifugal 250 PSI.
SIFTERS—Day, Robinson Rotex type.
SOAP MACHINERY—Toilet, Laundry, etc.
TABLET MACHINES—Colton 4½ T, etc. Stokes R single punch & RD1 rotary.
TANKS—Stainless, GL., Lined, Steel.
MISC. Boilers Gas & Oil. Conveyors.

Partial Listings — Write for Bulletins

## STEIN EQUIP'T CO.

107 8th St., Brooklyn 15, New York
STerling 8-1944

# LIQUIDATIONS

## CLEVELAND, OHIO

1—Raymond #73612 Super High Side 6-Roll Mill, with whizzer, cyclone, piping and motors.
1—Raymond #6669 Super High Side 6-Roll Mill, with whizzer, cyclone, piping and motors.
1—Raymond #5047 High Side 4-Roll Mill, with whizzer, cyclone and piping.
1—#1 Raymond Impact Mill, with whizzer, cyclone and piping.
2—Sturtevant 14' dia. Air Separator.

1—Kilby Nickel Single Effect Force Feed Evaporator, 1200 sq. ft.
2—12,000 gal. Nickel Clad Tanks.
2—Oliver 5'3"x4' Nickel Clad Rotary Vacuum Filters.
2—Pfaudler 300 and 200 gal Glass Lined Jkt. Agt. Reactors.
1—Sperry 30" C.I. Filter Press, 27 chambers.
1—Buflovak 32" x 90" Double Drum Dryer.
4—Feinc 8'x12' Rotary Vacuum Steel Filters, string discharge.
2—Peabody Gas Scrubbers stainless steel 11,000 CFM and 6,000 CFM at 145°F with fans, motors.
2—6'6" dia. x 60' Rotary Dryers.
1—5½' x 4½' x 50' Rotary Dryer.
1—5½' x 4½' x 60' Rotary Dryer.
7—Dorr 80' and 40' thickeners.
3—Vogt 387 sq. ft. Rotary Pressure Filters.
2—Chicago Pneumatic 26"x14" Vacuum Pumps with 150 HP motors.
3—Fuller Kinyon Pumps H5 and H6.
1—Link-Belt 24"x90' Belt Conveyor.
5—Nickel Centrif. Pumps, 2", 3".

## GENEVA, NEW YORK

2—Vulcan 3'x20' 347 S.S. Packed Columns with 240 sq. ft. S.S. Heat Exchanger.
5—Stainless Steel Condensers 70 to 250 sq. ft.
6—Nash H5, L5 Vacuum Pumps 20 & 15 HP
1—Nash L3 Stainless Vacuum Pump.
6—1200, 1000, 400 gals. 347 S.S. Tanks.
8—25,000 gal. Aluminum Storage Tanks ½" shell.
2—3000 gal. Aluminum Tanks, 7' x 11'.
1—Tolhurst 40" Centrifuge 347 S.S. imperforate basket, 15 HP.
1—Swenson Vert. 347 S.S. Single Effect Evap. 300 sq. ft.
2—Banks Stainless Steel cooling coils, each bank having 24 - 2" tubes 20' long.

# BRILL FOR VALUES

### CENTRIFUGES

3—Bird 18" x 28", 24" x 38" Solid Bowl Continuous 304 S.S.
1—Bird 40" x 60" Solid Bowl Continuous 316 S.S. UNUSED.
5—Sharples C-20 and C-27 Super-D-Hydrator 316 S.S.
3—Sharples PY14, PN14 Super-D-Canters 316 S.S.
2—Sharples #16, 304 S.S., 3 HP motor.
1—Tolhurst 40" 347 S.S. imperforate basket 15 HP UNUSED.

### TANKS

25—500 to 3500 gal. Vertical 304 S.S. Tanks opened and closed, some agitated.
6—7500, 6000 and 2000 gal. Rubber Lined Tanks.
1—1500 gal. Stainless Pressure Tank, 5' x 10', 90#.
1—2000 gal. Horizontal 304 S.S. Tank, 5' x 12'.
1—2500 gal. Vertical 304 S.S. Tank, 8' x 7'.
1—10,000 gal. Rubber Lined Tank, 10' x 17'6".
1—5500 gal. 316 S.S. Clad Pressure Tank 250 PSI.
1—12,000 gal. Horizontal Steel Pressure Tank. 7'6" x 36', 200 PSI.
5—25,000 gal. Aluminum Storage Tanks.

### REACTORS—EVAPS—CONDS—COLS

1—Pfaudler 125 gal. 304 S.S. Jacketed Agitated Reactor, 150# int., 125# jacket.
3—Pfaudler 200 gal. glass lined jacketed Kettles.
2—Pfaudler 50 gal. glass lined, Jacketed, Agitated Reactors.
1—650 gal. 304 S.S. Reactor with 100 sq. ft. Bayonet Heater.
1—O. G. Kelly 3000 sq. ft. 309 S.S. force feed Evaporator UNUSED.
1—550 sq. ft. Buflovak monel single effect Evaporator.
1—250 sq. ft. Buflovak 304 SS Single Effect Evaporator.
10—Stainless Heat Exchangers; 910, 536, 370, 250, 131, 70 sq. ft.
1—4'6" x 46' 316 S.S. Clad Column, 250 PSI.
6—30" x 19' S.S. Packed Columns.
1—24" x 35' 304 S.S. Bubble Cap Column.

### FILTERS

2—Niagara 110 sq. ft. Vert. 316 S.S.
1—Niagara 92 sq. ft. Vert. Jkt. 316 S.S.
2—#10 Sweetland, 27 lvs. 4" centers.
1—#5 Sweetland 304 S.S., 120 sq. ft.
1—Oliver 6' dia. Horizontal 316 S.S.
1—Oliver 4' dia. Monel Horizontal.
1—U.S. 200 sq. ft. 304 S.S. Auto-Jet.
1—Hercules 400 sq. ft. 304 S.S. Pressure.
3—Oliver Precoat 5' x 6', 5' x 10', 8' x 10'.
1—Oliver 5'3" x 8' Steel Rotary Vac vaportite housing.
1—Feinc 3' x 1' 316 S.S. Rotary Vac.

### DRYERS

1—Buflovak Vacuum Shelf, 17 - 60" x 80" shelves.
2—Buflovak 42" x 120", atmospheric double drum complete.
1—Buflovak 32" x 90" Atmos. Twin Drum.
2—Devine 4' x 9' single drum, atmospheric.
1—Buflovak 3' x 10' Rotary Vacuum.
6—Louisville Rotary Steam Tube 5' x 6', 6' x 30', 6' x 50'.
2—Louisville 8' x 50' Stainless Steel lined Rotary.
3—Rotary Dryers 4' x 40', 6' x 50', 6' x 60', 7' x 80', 8' x 87'.
1—Louisville 4½' x 25' Inconel Rotary.
1—Link Belt 6'4" x 24' Roto Louvre, 316 SS.
2—Atmos. Tray, 16 shelves, 40" x 24".
2—10' and 4' dia. 304 S.S. Spray Dryers.
2—Wyssmont, 304 S.S. 6'2" and 9'6" dia.

### MIXERS

1—Sturtevant 75 cu. ft. 304 S.S. Rotary Batch Blender 20 HP.
1—Abbe 110 gal. 304 S.S. Jacketed Agitated Vacuum Dispersall Mixer.
2—Day Imperial 150 gal. jktd. double arm.
2—Baker-Perkins 150 and 100 gal jacketed double arm Sigma blades.
1—Baker-Perkins 50 gal. Jacketed.
5—Day "Cincinnatus" double arm, 250 and 100 gal.
2—Steel jacketed Powder Mixers, 225 and 350 cu. ft.
1—1500# Powder Mixer 304 S.S.
1—3' dia. Simpson Intensive Mixer.
1—45" dia. Lancaster Mixer 7½ HP motor.

### MISCELLANEOUS

3—Kinney Vacuum Pumps, 1000 cfm, 10 microns, 15 HP.
2—Hardinge 5' x 22" steel lined conical Ball Mills.
3—Mikro Pulverizers, 1SH, 1SI and Banton.
3—Abbe 2½" x 3' porcelain lined Pebble Mill XP motor.
1—Raymond 10" vert. Mill, 10 HP.
3—Swenson Walker Continuous Crystallizers, 24" x 30' sections.
2—#24 Rotex Sifters 20" x 64", 40" x 56".
5—Day Roball Sifters, 40" x 120", 40" x 84", Double Deck.
6—Nash H6, H5, H3 Vacuum Pumps.
3—Nash H6, 347 S.S. Vacuum Pumps.
2—Stokes Rotary Tablet Machines DD2-DDS2.

***Partial List of Values — Send for Complete Details***

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**OPD Reports From Europe**

# *Belgian Chemicals: Goliath Aborning*

*—Continued from page 5*

alkyds; 15,000 tons of PVC, and 1,000 tons of polyesters.

All these figures are now undoubtedly much higher. Belgian PVC capacity at the end of 1960 is estimated at 25,000 tons and polyester production last year is put at 2,500 tons.

Dominating the plastics industry at the moment is Solvay Company, which is the only maker of PVC in the country and overall claims to be the continent's biggest producer of this plastic, which in turn is the largest single plastic in Europe.

The Solvay group claims a world capacity in PVC of 100,000 tons. It has PVC plants in Germany, France, Austria, Italy, Spain and Brazil and the Italian and Brazilian plants also make polyethylene. (See separate story on Solvay's PVC expansion in Spain on page 7.)

This tendency to expansion outside Belgium has been a feature of the country's plastic industry.

Economists of Kredietbank in Brussels attribute this to the narrowness of the home Belgian market. Large-scale expansion domestically would compel firms to export a disproportionate share of their total output, these analysts note.

Another factor in the lagging plastics growth, according to Kredietbank, has been the "insufficient development of the petrochemical sector."

Petrochemical expansion is now being pushed by Petrochim, which is affiliated with the powerful holding company, Ste Generale de Belgique, and the oil firm, Petrofina.

In addition to its polyethylene venture with Carbide, Petrochim now produces phenol, acetone, ethylene oxide, dodecyl benzene, propylene and some derivatives of these basic chemicals. Petrofina has an association with Amoco Chemicals Corporation, a subsidiary of Standard Oil Company (Indiana), for manufacture of lubricant additives.

Sidac, like Solvay, so far has tended to expand by creation of subsidiaries outside Belgium. It has also based its growth to a large extent on arrangements with US firms including Monsanto Chemical Company, Visking Corporation and Plax Corporation. A recent joint venture was with Monsanto and involved production in Belgium of polyvinyl butyral film for safety glass laminations.

The activities of Sidac outside Belgium are conducted through its Luxemburg subsidiary, Ste Financiere de la Cellulose, which publishes no reports. One of the biggest investments is British Sidac, which makes film in the UK. With Plax, Sidac has two ventures, Sidaplax and Finaplax, with output of biaxially oriented polystyrene film among other products.

Union Chimique Belge produces alkyd resins, acryl-vinyl copolymers, polyesters, maleic and phthalic anhydride and silicones. Producers of phenolic and amino plastics include Belge de l'Azote, Classens, Mesereel, Colle et Gelatines de Tournai, Vynckier Freres and Drugmand & Meert.

Kredietbank analysts believe the creation of the Common Market will stimulate plastics in Belgium by ending the limitations of a small national market.

But there is the question of whether Belgian companies can establish production facilities and markets fast enough, given the expansion of plastics by other European producers.

And competition will increase in the small country itself, for Farbenfabriken Bayer AG, the biggest German firm, has announced plans for a petrochemical complex near Antwerp and Imperial Chemical Industries, Ltd., is planning a $300 million petrochemicals-plastics center in nearby Rotterdam.

# *Oils, Fats and Waxes*

*—Continued from page 61*

process expeller meal was lower at $60.50, prompt.

**Soybean Meal**—Arrivals of first cars of new-crop soybeans at Decatur weakened this market, unrestricted billing sustaining largest losses. Trading was narrow, formula feed manufacturers holding purchases to nearby needs. A few small lots of October-March meal were sold at $13 under spot in the Minneapolis area. Unrestricted meal dropped $3.50 to $63.50 per ton, bulk, Decatur, prompt delivery.

## Waxes, Vegetable

Firm tone continued to feature the carnauba wax market, reflecting the strength of replacements from Brazil, especially yellows. Consumers manifested more interest in the market though trading was reported still spotty. Tight supply situation on spot has further strengthened yellows and prices were advanced from 1c. to 3c. per pound. No. 1 yellow ranged from 91c. to 95c. per pound, spot depending upon seller and quantity and Parnahyba, 94c. to 98c., same basis. Fatty grades were unchanged. No. 1 Ceara was held at 61c. to 62c. per pound, spot and Parnahyba, 2c. more.

## *FDA Gets Back*

*—Continued from page 3*

porary stick-on labels or tags containing the required warning information.

Industries, however, are pressing for an extension of the effective date of the law. Last week the Manufacturing Chemists' Association, pointing to the hardship entailed for many small firms without facilities to quickly convert their labels, asked the appropriate house and senate committees to sponsor legislation extending the effective date of the law.

Indications are that the matter will receive the highest priority by the committees when congress convenes for the new session in January.


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**LOCATED AT EVERETT, MASS. and NIAGARA FALLS, N. Y.**

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**STAINLESS COLUMNS**
78"x18'x¼" Vulcan 318 SS Bubblecap, 14 trays, 180 caps/tray, 50 PSI.
72"x30'x¼" Budd 347SS Bubblecap, 21 trays, 38 caps/tray.
48"x41'x5/16" Vulcan 316SS Bubblecap, 40 trays 70 caps tray PSI.
36"x21'x¼" 316 ELC SS Packed, 15 PSI.
36"x20'x3/16" Vulcan 316SS Packed 100 PSI.
30"x23'x¼" 316 SS Packed 75 PSI.
14"x17'6"x⅛" 316 SS Packed.
12"x18'8"x3/16" 347SS Packed 100 PSI.
18'x66'—7' cone bottom, ¼" 316SS Packed Absorber Column Stainless Packing.

**COLUMNS**
20"x27' GLASS LINED 50 PSI full vacuum.
16"x21' GLASS LINED Scrubber.
16"x10' GLASS LINED 25 PSI full vacuum.

**REACTORS**
Pfaudler 500 gal. ELL Gl. Lined Jktd. Agit.
Pfaudler 300 gal. EL G1. Lined Jktd. Agit.
Dopp 1700 gal. Ni-Resist Jktd. Agit.
Dopp 1000 gal. Ni-Resist Jktd. Agit.
Vulcan 1000 gal. Everdur Coiled. Agit.
Patterson 1000 gal. Steel Jacketed.
Patterson 500 gal. Steel Jktd. Agit. 2 HP XP.
Alloy Tank 750 gal. Stainless Pressure Still.
Alloy Tank 300 gal. Stainless Pressure Still.
30 gal. Agit. SS 316; 1,000 PSI INT. 319 PSI JKT.

**CENTRIFUGES—FILTERS**
Sharples C-27 Super-D-Hydrator Stainless.
Sharples C-20 Super-D-Hydrator Stainless.
40" Fletcher Susp Centrifuge Perf. 15/7½ HP.
30" Susp Centrifuge—Imperforate Stainless.
Sharples #6 Super Centrifuge Stainless Bowl.
5'3"x3' Oliver Precoat Rot Vac Filter SS
4'x1' Bird Young Rot. Vac Filter Stainless.
36"x24" Goslin Rot. Vac Filter Stainless.
48"x36" Stainless Nutsche Filter.
#11 Sweetland 640 Sq. ft. 48 Stainless leaves.
18"x28" Bird Continuous Stainless.

**DRYERS—KILNS**
8'x60'x⅜" Al. Chalmers Welded Kiln
7'x120'x9/16" Bethlehem Fdy. Kiln.
7'x45'x½" Link Belt Welded Kiln.
604-24 Roto-Louvre Dryer Stainless Steel.
6'x124'x¾" Vulcan Kiln.
502-16 Roto-Louvre Dryer.
4'x40'x⅜" Welded Dryer NEW Shell.
3'x16' Stainless Rotary Dryer.
6"x8" Buflovak Vacuum Double Drum Dryer.
6'x5'6" Blawknox Vacuum Single Drum Dryer.
F. J. Stokes 38A Steam Heated Tray Dryer.

**COMPRESSORS VACUUM PUMPS**
Clark 9920 CFM 149 PSIA Suct 239PSIA Dis.
Al. Ch. Centrifugal 7500CFM @ 42.5PSI, 1250 HP.
Worthington YO 1260 CFM @ 35 PSI; 150 HP.
Worthington 1015 CFM @ 35 PSI Steam Driven.
Norwalk Hydrogen Compressor 5 CFM 15000 PSI.
Nash #4 Vacuum Pump 650 CFM @ 15".
Nash TS10 2 stage Vacuum Pumps.
Nash L3 Stainless Comp. 127 CFM @ 20 PSI.
Stokes 612F 500 CFM @ 1mm Vacuum Pump.
Worth. 600 CFM @ 50 PSI Comp. 75HP XP.
Ing. Rand 450 CFM @ 100 PSI Comp. 75 HP.
Nash CD 663 Stainless Comp. 50 CFM @ 75 PSI.

**STAINLESS STEEL TANKS**
108,000 gal. 18'x61'x¼" flat/cone.
17,500 gal. 15'x16'x3/16" flat/cone.
11,500 gal. 12'x15'x3/16" flat/cone, agit.
10,500 gal. 10'x23'x3/16" dish/cone.
4,500 gal. 6'x25'x¼" dish/cone 25 PSI Coil.
4,000 gal. 8'x12'x3/16" dished Coiled.
3,500 gal. 8'x9'x5/16" dished heads.
1,500 gal. 6'x6'9"x¼" dished heads.
1,200 gal. 5'x8'x¼" Agitated.
750 gal. 4'6"x6'x¼" dished 42 PSI.
500 gal. 4'x5'x5/16" dished heads.
500 gal. 4'x5'6"x¼" flat Agitated.
(20) Tanks 50 to 400 gal. some agitated.

**TANKS**
12000 gal. Aluminum 10'x23'3" dished heads.
10000 gal. Aluminum 9'x23'3" dished heads.
7000 gal. Aluminum 10'x14' dished heads.
3500 gal. Copper 8'x9'x⅛" dished Coiled.
2000 gal. Copper 7'x7'x⅛" dish Agit Coil.
500 gal. Copper 4'x5'x5/16" dished Coiled.
20000 gal. Steel 12'x24'4"x⅞" dished 100 PSI.
10000 gal. Steel 8'x30'x⅜" dished 60 PSI.
6500 gal. Steel 7'6"x20'x¼" dished.
2500 gal. Heresite lined 5'x15'6", 68 PSI.
2250 gal. Steel 6'x19'x5/16" dished 114 PSI.
1250 gal. Steel 5'x8' dished Agit. Coil.

96,000 Bbl. Storage Tanks 120'x48' (8)

**HAMMERMILLS—CRUSHERS**
Penna SX13 150 TPH, 400 HP Synch. Drive.
Dixie Mogul #5060 Manganese Lined.
Raymond #50 Imp Mill Model C2-855.
Bacon Hevi-Duty Style B 20"x6" Jaw Crushers.
Universal 5"x6" Jaw Crusher Manganese Jaws.
Sturtevant 8"x5" Double Roll Crusher.
Raymond #51 Imp Mill.

**SPECIAL ITEMS**
MIXER 300 gal. B.P. STAINLESS Sigma 18DIM.
ENTRAINMENT SEPARATOR—Monel 36'x8'.
CALENDER—12" 3 Roll Perkins.
GRANULATOR—Stokes Oscillating #243E 5HP.
TABLET PRESS—Stokes Rotary RDS3-DDS2.
FORK LIFT TRUCK—1 & 3 ton Gas Engine, Solid Tire.
TRIPLEX PUMP—2¼x4 Stainless 2000 PSI.
BLOWER 2500 CFM 10 PSI Read Standardair.
GAS PUMP 20"x20" Roots Connersville "RS."
GAS METER 8"x24" Roots 60000 CFH.
CRYSTALLIZER Squire 40"x30" Agit, Jktd.
CRYSTALLIZER Buflovak 6' Vacuum Jktd. Agit.
CRYSTALLIZER Swenson 24"x20' Jktd.SS 304.
AIR DEHYDRATOR-Anders 8FA Automatic.
ABSORPTIVE DRYER- Kemp FE02-S Dual Tower.
SIFTER 30"x96" Roball STAINLESS Screen.
SIFTER 40"x84" Roball Single Deck.
SIFTER 60"x84" Rotex STAINLESS 1 Deck.
SIFTER 48" Sweco-Triple Deck Model A9062.
HEATER 150KW Hot Oil Hynes Elec. Co.
BRIQUETTE PRESS Komarek Greaves 27"x24".
EVAPORATOR—435 Sq. ft. Single Effect.
BALL MILL Traylor 8'x11' Steel Lined 300 HP.
CENTRIFUGAL PUMPS—STAINLESS—1" to 3" 10 to 750GPM 35 to 100' Head.

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1056 Sq. ft. Steel ¾"x16ga.x10' Tubes.
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**STAINLESS HEAT EXCHANGERS**
2320 Sq. ft. 33"x21'—1"x16ga.x16' Tubes.
1000 Sq. ft. 27"x168"—¾"x16ga.x14' Tubes.
890 Sq. ft. 22"x20'8"—⅝"x16ga.x14' Tubes.
800 Sq. ft. 23"x17'10"—⅜"x16ga.x16' Tubes.
615 Sq. ft. 22"x15'9"—⅝"x16ga.x10' Tubes.
420 Sq. ft. 18"x9'6"—¾"x18ga.x8' Tubes.
300 Sq. ft. 14"x19'6"—¾"x18ga.x12' Tubes.
235 Sq. ft. 16"x8'3"—⅝"x16ga.x7' Tubes.
188 Sq. ft. 11"x16'8"—⅝"x14ga.x12' Tubes.
146 Sq. ft. 11"x13'10"—⅝"x16ga.x9'6"Tubes.
68 Sq. ft.8"x17'3"—¾"x16ga.x16' Tubes.
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Shriver Diaphragm Pump 1½ HP.
Shriver "O" Diaph. Pumps ¼ HP.
Charlotte M20-ND T-316 SS Colloid Mill w/20 HP XP Motor—600 gph.
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Homogenizer 10 HP, S.S.—200 gph.

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2—OLIVER PRESS PRECOAT FILTERS 5'3"—Type 316 S.S.

2—RIBBON BLENDERS, 2500 gal., 1200 gal.

2—AUTOCLAVES S.S., 50 gal., 2000 lb., 3½ gal., 2000 lb.

1—DRUM DRYER, Proctor & Schwartz.

3—COLLOID MILLS, 5 HP EX PR., 40 HP.

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## COMPLETE CHEMICAL PLANT

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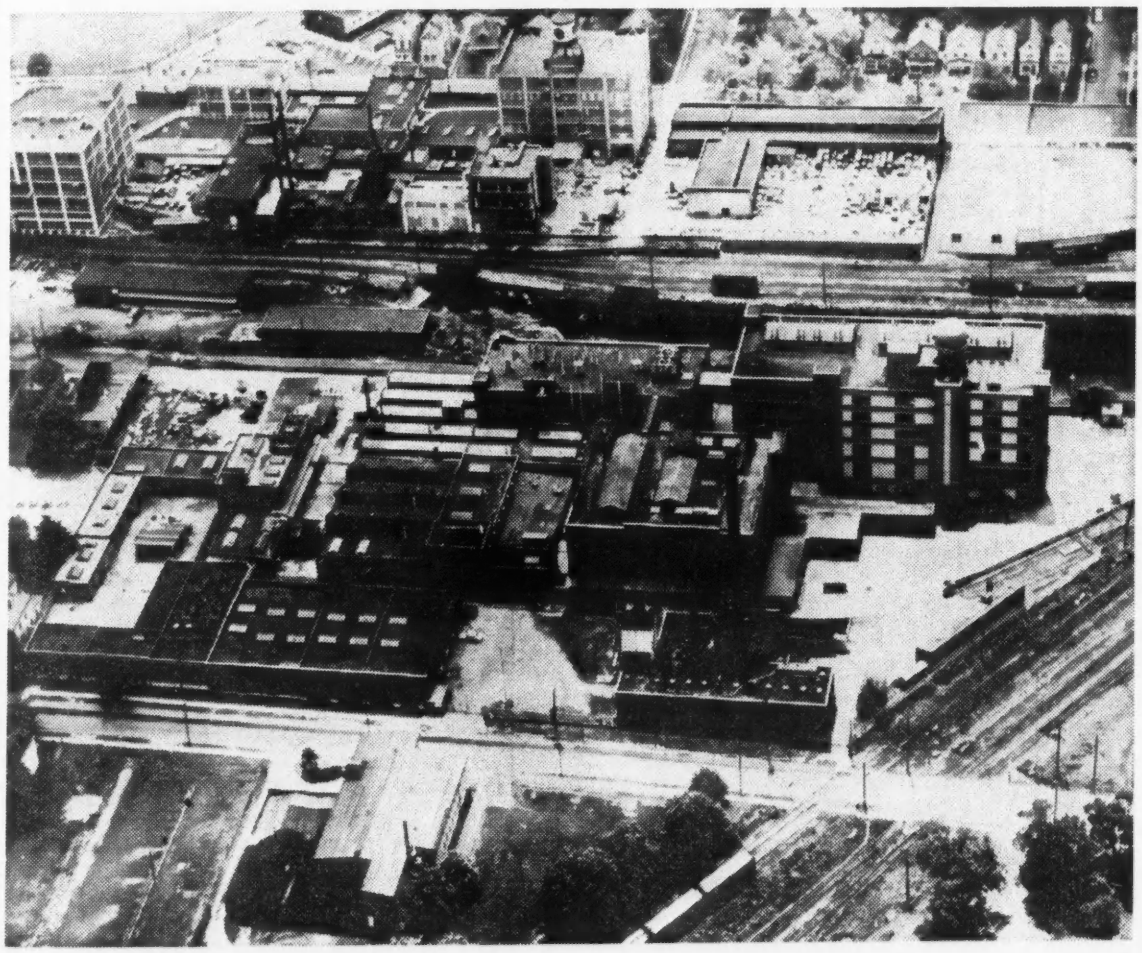

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9—Pfaudler and Glasscote 500 gal. Jacketed and Agitated Reactors.

5—Steel Jacketed and Agitated 500 gal. Reactors.

10—Lead Lined Sulphonators in various sizes from 500 gal. up.

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SHRIVER Plate and Frame Presses in Cast Iron, Wood, Ni-Resist, etc. Many with HYDRAULIC Closing Devices.

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Unlined Steel Ball Mills:

(2) 3' x 5' (14) 5' x 7'
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9—1300 gal. T321 SS tanks, 7' x 4'6".
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*—Continued from page 4*

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## *Coating Materials*

*—Continued from page 59*

resins is, according to Mr. John G. Zora, Koppers technical director for specialty chemicals, between 50 and 60 million pounds. Mr. Zora pointed out that this is roughly double the figure of five years ago, and Koppers expects a comparable growth trend to continue.

**PLASTIC PIPE FOR OIL:** Commercial availability of new plastic pipe for extreme pressure and temperature applications in petroleum production has been announced by the Spiral-Glas Pipe Company, Old Bridge, N.J. Presently geared to producing 2 inch, 3 inch and 4 inch pipe by June 1962. The new pipe is designed for use in corrosive applications at high pressures and is recommended for use in crude gathering lines, the company reports.

**SALES AGENT APPOINTED:** CIBA Products Corporation, Fair Lawn, N.J. has been appointed exclusive sales agent for "Esporal," a curing agent recommended for applications requiring long shelf life. Laminates, castings, adhesives and tooling are listed by CIBA as being the chief end uses for the new product. Chemically, "Esporal" is known as diaminodiphenyl sulfone (DDS or DADPS). Physically, it is a tan powder and almost completely odorless.

## *Sodium Chlorate Unit*

*—Continued from page 5*

capacity to fulfill anticipated needs of the market for the next several years.

Penn-Olin was formed early in 1960 by Pennsalt Chemicals Corporation, Philadelphia, and the Olin Mathieson Chemical Corporation, New York.

The multi-million dollar electrochemical unit comprises the latest Pennsalt cell design, with fully automated control and production systems. Olin, through its regular sales offices and marketing organization, is handling the sales of sodium chlorate from this new facility which Pennsalt is operating.

Sodium chlorate has grown in use in recent years as the source of a basic bleaching chemical, chlorine dioxide, used in the pulp and paper industry. In addition, it is the raw material for producing ammonium perchlorate, an oxidizer for solid propellent systems in missiles and space vehicles.

# IMPORTS at United States Ports

## New York

ACETANILIDE—20 dms, Transworld International Service, Liverpool
ALOE—200 cs, S B Penick & Co, Aranjestad
ALUM—230 bgs, C M C Chemicals Inc, Liverpool
ALUMINUM FLUORIDE—280 bgs, Atlantic Raw Materials, Genoa
ALUMINUM POWDER—5 dms, Hamburg
AMMONIUM CARBONATE—100 dms, Rotterdam
AMYRIS OIL—9 dms, Port Au Prince
ANILINE DYES—130 dms, Geigy Chemical Corp, Bremerhaven
17 dms, Geigy Chemical Corp, Havre
2 dms, Carbic Hoechst Corp, Bremen
55 dms, Carbic Hoechst Corp, Rotterdam
63 dms, Sandoz Inc, Havre
30 dms, Heemsoth Kerner, Liverpool
2 dms, Geigy Chemical Corp, Liverpool
7 dms, L & R Organic Products, Liverpool
33 dms, Wedeman & Godknecht, Bremen
22 dms, General Aniline & Film Corp, Hamburg
36 dms, Verona Dyestuffs, Hamburg
206 dms, Rotterdam
ANNATTO SEED—65 bgs, Callao
ANTIMONY—20 cks, Watson Geach, Liverpool
ANTIMONY OXIDE—1,000 bgs, Indussa Corp, Antwerp
ANTIMONY REGULUS—100 cs, Indussa Corp, Antwerp
ANTIPYRINE—20 dms, Rotterdam
ARABIC GUM—200 bgs, Swiss Bank Corp, Port Sudan
1,100 bgs, Irving Trust Co, Port Sudan
400 bgs, Stein Hall & Co, Port Sudan
150 bgs, Nehls & O'Connel, Port Sudan
513 bgs, Morningstar Paisley Inc, Port Sudan
250 bgs, T M Duche & Sons, Port Sudan
100 bgs, Port Sudan
ARROWROOT—3,300 bgs, Morningstar Paisley Inc, St Vincent
ASBESTOS FIBER—2,000 bgs, Johns Manville Corp, Lourenco Marques
ASCORBIC ACID—24 dms, Byron Chemical Co, Kobe
BARIUM CHLORIDE—50 bgs, Mutchler Chemical Co, Bremen
BAY OIL—5 cms, Port of Spain
BEESWAX—91 bgs, International Commodities Corp, Valparaiso
50 bgs, International Commodities Corp, Talcahuano
BERGAMOT OIL—20 cs, Citrus & Allied Essential Oils Co, Messina
10 hf cs, Florasynth Lab, Messina
BISMUTH SUBNITRATE—5 cs, Hamburg
BONE—1,666 bgs, Buenos Aires
BONEMEAL—200 dms, D Young, Antwerp
BRONZE POWDER—273 dms, Hamburg
BRUCINE ALKALOID—6 cs, Frank Samuel & Co, Southampton
BRUCINE SULFATE—5 cs, Frank Samuel & Co, Southampton
CADMIUM OXIDE—1 dm, Montanore Inc, Antwerp
CALCIUM CARBONATE—800 bgs, N H Weitzner, Antwerp
1,800 bgs, Whittaker Clark & Daniels, Liverpool
1,000 bgs, Smith Chemical & Color Co, Liverpool
600 bgs, Pluess Staufer, Antwerp
CALCIUM CARBONATE, PRECIPITATED—600 bgs, Liverpool
CALCIUM GLUCONATE—12 dms, Frank Samuel & Co, Rotterdam
CALCIUM HYPOCHLORITE—300 dms, Yokohama
CALCIUM PLUMBATE—6 dms, Liverpool
CANDILILLA WAX—188 bgs, Cornelius Wax Refining Corp, Tampico
CARAWAY SEED—125 bgs, Biddle Purchasing Co, Rotterdam
300 bgs, Hoger Corp, Rotterdam
200 bgs, Newmann Bros, Rotterdam
150 bgs, P H Petry, Rotterdam
200 bgs, E J Spitz, Rotterdam
300 bgs, Rotterdam
CARBAZOLE—7 dms, Terra Chemicals Inc, Rotterdam
CARBON, ACTIVATED—125 bgs, Connor Engineering Corp, London
CARBON, DECOLORIZING—60 dms, American Cyanamid Co, Bremen
CARDAMOMS—52 bgs, Lo Curto & Funk, Puerto Barrios
CARNAUBA WAX—223 bgs, Cornelius Wax Refining Co, Fortaleza
313 bgs, Bankers Trust Co, Tutoia
579 bgs, Bank of London & SA, Tutoia
188 bgs, Swiss Credit Bank, Tutoia
766 bgs, Chase Manhattan Bank, Tutoia
188 bgs, Peoples Trust Co, Tutoia
56 bgs, Wm Diehl & Co, Fortaleza
134 bgs, J W Hanison Co, Fortaleza
CASEIN—4,416 bgs, A J Mills & Co, Wellington
10,633 bgs, A J Mills & Co, Auckland
215 bgs, F H Paul & Stein Bros, Aalesund
500 bgs, Crawford Kish & Co, Gdynia
1,000 bgs, Buenos Aires
617 bgs, Hamburg
CASSIA—832 bls, Magna Enterprises, Padang
507 bls, K H Landes & Co, Padang
CASTOR OIL—300 tons, Wallace & Tiernan, Santos
400 tons, Anderson Clayton & Co, Santos
300 tons, Brazil Oiticica Inc, Fortaleza
145 tons, Recife
CEDARWOOD OIL—7 dms, International Flavors & Fragrances Inc, Mombasa
CELERY SEED—81 bgs, Fritzsche Bros, Bombay
325 bgs, Louis Furth, Bombay
174 bgs, C M Van Sillevoldt, Bombay
CELLULOSE EXTRACT—300 bgs, Barkey Importing Co, Gothenburg
CHESTNUT EXTRACT—910 bgs, Barkey Importing Co, Genoa
CHLORINATED RUBBER—200 bgs, Chemical Manufacturing Co, Liverpool
CINNAMON BARK—44 bgs, Rotterdam
CINNAMONLEAF OIL—4 dms, Volkart Bros, Galle
CINNAMON QUILLS—50 bls, Max Van Pels, Colombo
25 bls, W E Martin & Sons, Colombo
50 bls, Curacao Trading Co, Colombo
CITRONELLA OIL—23 dms, Volkart Bros, Galle
17 dms, George Uhe Co, Galle
10 dms, Volkart Bros, Colombo
CLAY, BALL—1,674 bgs, United Clay Mines Corp, Avonmouth
CLAY, CHINA—493 bgs, J W Higman Co, Avonmouth
2,244 bgs, Anglo American Clays Corp, Avonmouth
CLOVE—300 bgs, Djibouti
CLOVE OIL—12 dms, Djibouti
COCONUT OIL—45 tons, Fallek Products Co, Rotterdam
COCONUT SHELL CHARCOAL—689 bgs, Colombo
CODLIVER OIL—25 dms, Arista Oil Products Co, Aalesund
CODLIVER OIL CONCENTRATE—3 dms, Arista Oil Products Co, Bergen
COPAL GUM—64 bgs, Wm H Scheel, Singapore
CORN STARCH—1,120 bgs, Rotterdam
CUBE POWDER—500 bgs, Foreign Domestic Distributors, Callao
DEGRAS—239 dms, Malmstrom Chemical Corp, Fremantle
56 dms, Crystal Extract & Chemical Co, Fremantle
54 dms, Silvey Shipping Co, Fremantle
20 dms, H J Meeter Co, Rotterdam
28 dms, N I Malmstrom, Rotterdam
DEXTRIN—230 bgs, Manufacturers Trust Co, Rotterdam
330 bgs, Morningstar Paisley Inc, Rotterdam
DICHLONE—171 bgs, U S Rubber Co, Gothenburg
DINA ACID—11 dms, H Bruckmann & Lorbacher, Bremen
DYES, COALTAR—102 dms, General Aniline & Film Corp, Hamburg
33 dms, Verona Dyestuffs, Hamburg
14 dms, General Aniline & Film Corp, Havre
178 dms, Sandoz Inc, Rotterdam
EARTH COLORS—1,740 bgs, United Ultramarine & Chemical Co, Rotterdam
387 bgs, Reichard Coulston, Larnaca
850 bgs, Naftone Inc, Bremen
1,605 bgs, Rotterdam
EPHEDRINE HYDROCHLORIDE—20 dms, Burroughs Wellcome & Co, London
EUCALYPTOL—10 dms, Seville
EUCALYPTUS LEAVES—20 bls, Leixoes
FENNEL SEED—156 bgs, Istanbul
FISHMEAL—502 bgs, Marine & Animal By Products Corp, Balboa
FLUORANTHENE—27 dms, G A Abood, Rotterdam
FUEL OIL—174,120 bbls, Humble Oil Co, Las Piedras
103,716 bbls, Hess Inc, Punta Cardon
83,727 bbls, Central Petroleum Corp, Punta Cardon
125,409 bbls, Space Petroleum Corp, Aruba
223,983 bbls, Humble Oil Co, Aruba
FULLER'S EARTH—400 bgs, L A Salomon & Bro, London
GALL—6 cks, Wilson & Co, Opua
4 cks, Wilson & Co, Auckland
GALLNUTS—116 bgs, Meer Corp, Izmir
GAMMA ACID—101 kgs, Genoa
GELATIN—400 bgs, First National Boston, Hamburg
300 bgs, King Shipping Co, Gothenburg
300 bgs, T M Duche & Sons, Gothenburg
400 bgs, King Shipping Co, Antwerp
208 dms, D H Burdell, Liverpool
100 bgs, T M Duche & Sons, Havre
GERANIUM OIL—1 ck, A Verley & Co, Marseille
GLUE—300 bgs, Jung Forwarding Co, Liverpool
GLUESTOCK—166 bls, Charmers Gelatine Corp, Buenos Aires
I-GLUTAMIC ACID—20 dms, Ajinomoto Co, Yokohama
GLYCERINE—270 tons, Procter & Gamble Co, Manila
GRAPHITE—250 bgs, C Pettinos, Colombo
GUAR GUM—200 bgs, Hudson Shipping Co, Piracus
[illegible] bgs, J L Quesada, Valencia
100 bgs, Meer Corp, Genoa
GYPSUM, CRUDE—20,804 tons, U S Gypsum Co, Hantsport
2,620 tons, National Gypsum Co, Walton
HAARLEM OIL—5 cs, Amsterdam
HEXA[illegible]ETHYLENE TETRAMINE—50 bbls, Antwerp
HEXA[illegible]OL-2,5—4 dms, Orlex Dyes & Chemical Corp, Bremen
HEXANETRIOL-1,2,6—75 cks, Hamburg
IODINE, CRUDE—40 kgs, Chase Manhattan Bank, Yokohama
IRON BLUE—32 dms, Van Oppen & Co, Liverpool
IRON CARBONYL POWDERS—27 dms, General Aniline & Film Corp, Rotterdam
IRON OXIDE—500 bgs, C J Osborn Co, Malaga
4,061 bgs, Reichard Coulston, Malaga
250 bgs, Hudson Shipping Co, Oslo
JAPAN WAX—110 bgs, Mitsubishi Corp, Yokohama
60 bgs, Frank B Ross, Kobe
KARAYA GUM—156 bgs, Meer Corp, Bombay
36 bgs, Chase Manhattan Bank, Bombay
58 bgs, Stein Hall & Co, Bombay
555 bgs, Jacques Wolf, Bombay
126 bgs, Colony Import & Export Corp, Bombay
121 bgs, Nehls & O'Connel, Bombay
849 bgs, Block Drug Co, Bombay
KELPMEAL—180 bgs, N K M Importing Co, Aalesund
KOLA NUTS—294 bgs, Apapa
LACTIC ACID—100 dms, Lo Curto & Funk, Liverpool
LACTOSE—100 dms, Rotterdam
LAUREL LEAVES—158 bls, Levy & Levis Co, Izmir
125 bls, V A Cordovi, Iskenderun
LAVANDIN OIL—1 ck, Polarome Manufacturing Co, Cannes
LAVENDER OIL—2 cks, Magnus Mabee & Reynard, Marseille
11 dms, Alicante
LEAD OXIDE—66 dms, J J Gavin, Vera Cruz
LEAD, WHITE—120 bgs, Mohegan International, Rotterdam
LEMON OIL—40 cs, Ungerer & Co, Messina
2 hf. cs, National City Bank, Messina
LEMONGRASS OIL—50 dms, Lo Curto & Funk, Puerto Barrios
36 dms, Maywood Chemical Works, Cochin
12 dms, Volkart Bros, Cochin
LICORICE EXTRACT—500 cs, W E Martin & Sons, Izmir
246 bgs, W E Martin & Sons, Izmir
LIME OIL—3 dms, S S Schoenmann, Port Au Prince
LITHARGE—67 dms, Hercules Powder Co, Vera Cruz
174 dms, Eagle Picher Co, Tampico
LIVER POWDER, DESICCATED—10 dms, Frank Samuel & Co, London
LOCUST BEAN GUM—330 bgs, Stein Hall & Co, Genoa
750 bgs, J L Quesada, Valencia
LOGWOOD EXTRACT—140 dms, American Dyewood Co, Kingston
MAGNESITE—800 bgs, Cochin
MAGNESIUM CARBONATE—200 bgs, Reheis Co, Liverpool
MAGNESIUM HYDROXIDE—40 bgs, Reheis Co, Liverpool
MANDARIN OIL—10 hf. cs, National City Bank, Messina
MANGANESE BLUE—2 dms, Naftone Inc, Bremen
MANGROVE EXTRACT—500 bgs, Saxe Cutch Corp, Singapore
MATICO LEAVES—44 bls, Foreign Domestic Distributors, Callao
MENTHOL—50 cs, Magnus Mabee & Reynard, Keelung
20 cs, Imco Trading Co, Keelung
10 cs, Max Van Pels, Keelung
100 cs, Lo Curto & Funk, Santos
300 cs, Schwabach & Co, Santos
150 cs, Bemo Shipping Co, Santos
MINERAL WAX—200 bgs, Hamburg
MOLASSES—12,708 tons, Port Esquivol
MOLASSES, BEET—10,547 tons, Standard Brands Inc, Havre
MONTAN WAX—200 bgs, Frank B Ross, Hamburg
100 bgs, G S Ziegler & Co, Rotterdam
MUSTARD SEED—700 bgs, Bankers Trust Co, Messina
273 bgs, R T French, Copenhagen
MYROBOLANS—3,690 bgs, Barkey Importing Co, Vizagapatam
NAPHTHENIC ACID—2,978 bbls, Humble Oil Co, Aruba
NIACIN—10 kgs, D Hauser, Gothenburg
NUTMEG—42 bgs, J H Elton, Singapore
70 bgs, Hismoco American Co, Singapore
276 bgs, K H Landes & Co, Singapore
111 bgs, P H Petry, Hamburg
20 bgs, Rotterdam
OLIVE OIL—20 dms, J Vicorti & Co, Barcelona
2,206 dms, Malaga
347 dms, Seville
OREGANO LEAVES—136 bgs, M J Golombeck, Piraeus
176 bgs, H Marmorek & Son, Piraeus
88 bgs, Louis Furth, Piraeus
OURICURY WAX—111 bgs, M Argueso & Co, Salvador
50 bgs, M Schmidt, Salvador
PALM OIL—15 dms, Amato Agency, Antwerp
PAPAIN—51 hf cbts, Meer Corp, Colombo
30 cs, Prentiss Drug & Chemical Co, Mombasa
217 cs, Gemo Shipping Co, Mombasa
70 cs, Chas L Huisking & Co, Mombasa
20 cs, Mombasa
PAPAYA LEAVES—40 bgs, Colombo
PENTAERYTHRITOL—726 bgs, D Hauser, Yokohama
PEPPER, BLACK—1,070 bgs, Ludwig Mueller, Singapore
560 bgs, C M Van Sillevoldt, Singapore
320 bgs, California Commodities Corp, Singapore
140 bgs, Atlanta Textile Corp, Singapore
121 bgs, V A Cordovi, Singapore
210 bgs, Otto Gerdau, Singapore
70 bgs, Kellys America Ltd, Singapore
140 bgs, C Czarinkow, Singapore
PEPPER, WHITE—140 bgs, East India Trading Co, Singapore
175 bgs, Singapore
PETROLEUM, CRUDE—110,152 bbls, Sohio Petroleum Co, Punta de Palmas
155,450 bbls, California Oil Co, Punta de Palmas
169,572 bbls, Atlantic Refining Co, Punta de Palmas
218,333 bbls, Humble Oil Co, Puerto La Cruz
89,190 bbls, Humble Oil Co, Las Piedras
PHENANTHRENE—1 dm, Terra Chemicals Inc, Rotterdam
p-PHENYLPHENOL—117 bgs, Reichold Chemicals Inc, Hamburg
PIMENTO—230 bgs, M J Golombeck, Kingston
40 bgs, Louis Furth, Kingston
PIMENTO LEAF OIL—2 dms, D W Hutchinson & Co, Kingston
2 dms, Ungerer & Co, Kingston
3 dms, Fritzsche Bros, Kingston
1 dm, Nerda Essential Oil & Chemical Co, Kingston
POLYVINYL ALCOHOL—1,405 bgs, Kobe
POPPYSEED—235 bgs, Louis Furth, Rotterdam
POTASSIUM CHLORATE—100 dms, Hummel Chemical Co, Hamburg
PYRETHRUM EXTRACT—24 dms, Mombasa
QUEBRACHO EXTRACT—513 bgs, Barkey Importing Co, Buenos Aires
5,110 bgs, International Products Corp, Buenos Aires
QUINIDINE SULFATE—58 dms, Chas L Huisking & Co, Hamburg
QUININE ALKALOID—1 cs, Gyma Lab, London
QUININE ETHYL CARBONATE—4 kgs, Panmed Pharmaceutical Inc, Southampton
QUININE HYDROCHLORIDE—6 dms, Chas L Huisking & Co, Hamburg
RIBONOLACTONE—7 dms, Hoffmann-La Roche Inc, Bremen
RICE STARCH—230 bgs, Aurora Manufacturing Co, Rotterdam
ROSE OIL—1 ck, A Verley & Co, Marseille
ROSEMARY LEAVES—230 bls, Leixoes
ROSEMARY OIL—1 ck, International Flavors & Fragrances Inc, Marseille
16 dms, Alicante
SAGE LEAVES—14 bls, V A Cordovi, Iskenderun
60 bls, Hamburg
SANDALWOOD CHIPS—200 bgs, S B Penick & Co, Bombay
SANDALWOOD OIL—4 cs, Fritzsche Bros, Calcutta
10 cs, International Flavors & Fragrances Inc, Calcutta
SAPONINA—19 cs, A K Peters Co, Valparaiso
SEEDLAC—500 bgs, United Shellac Corp, Calcutta
500 bgs, Bradshaw Praeger & Co, Calcutta
SHELLAC—50 bgs, Wm Zinsser & Co, Calcutta
SIENNA, BURNT—150 bgs, C B Chrystal Co, Larnaca
SODIUM BICARBONATE—500 bgs, Chemical Manufacturing Co, Liverpool
SODIUM BROMATE—270 dms, Rotterdam
SODIUM PHOSPHATE—100 cks, Benckiser Inc, Rotterdam
10 cks, Havre
SODIUM SILICOFLUORIDE—300 bgs, Amsterdam
SPERMACETI—100 cs, Strohmeyer & Arpe, Liverpool
STARCH—600 bgs, Morningstar Pasiley Inc, Amsterdam
810 bgs, Morningstar Paisley Inc, Rotterdam
SULFANILAMIDE—40 dms, Lo Curto & Funk, London
20 dms, Frank Samuel & Co, Gdynia
SULFUR, PRECIPITATED—22 bgs, H A Gogarty, Rotterdam
TAMARINDS—43 bbls, S B Penick & Co, St Johns
TAMARIND POWDER—66 bgs, Bombay
TAMARIND SEED—13 bgs, Bombay
TANNING EXTRACT—3,136 bgs, Crystal Extract & Chemical Co, Fremantle
TAPIOCA—660 bgs, Morningstar Paisley Inc, Itajai
400 bgs, Berneo International, Itajai
300 bgs, Manhattan Adhesives Corp, Itajai
TAPIOCA FLOUR—3,243 bgs, Stein Hall & Co, Kohsichang
3,094 bgs, Stein Hall & Co, Itajai
674 bgs, Manhattan Adhesives Corp, Penang
TARTARIC ACID—250 bgs, Nylos Trading Co, Genoa
1,800 bgs, Leonhardt & Brush, Barcelona
THIONYL CHLORIDE—1 cs, Naftone Inc, Bremen
TITANIUM OXIDE—800 bgs, Antwerp
TONKA BEANS—34 cks, Machado & Co, Port of Spain
VANILLA BEANS—315 cs, Djibouti
VEGETABLE OIL—3 dms, Polarome International Co, Hamburg
VETIVER OIL—4 cs, Petry, Port Au Prince
2 cks, A Verley & Co, Marseille
WATTLE BARK—1,078 bls, Bowring & Co, Capetown
WATTLE EXTRACT—666 bgs, Hammond & Carpenter, Durban
XYLIDINE—50 dms, Aceto Chemical Co, Genoa
YLANG YLANG OIL—4 cks, A Verley & Co, Marseille
ZINC OXIDE—800 bgs, Hercules Powder Co, Vera Cruz

## Los Angeles

ARROWROOT—1,200 bgs, Morningstar Paisley Inc, Port of Spain
CALCIUM CARBONATE—2,000 bgs, Pluess Staufer, Antwerp
CARAWAY SEED—100 bgs, B C Ireland, Amsterdam
COCONUT OIL—350 tons, Wells Fargo Bank, Cebu
COPRA—1,000 tons, Procter & Gamble Co, Medina
800 tons, Procter & Gamble Co, Cebu
400 tons, Procter & Gamble Co, Cagayan de Oro
6,281 bgs, Wilbur Ellis Co, Manila
400 bgs, Procter & Gamble Co, Manila
2,250 tons, Wells Fargo Bank, Tacloban
1,000 tons, Cargill Inc, Tacloban
350 tons, Wells Fargo Bank, Cebu
CUMIN SEED—265 bgs, W L Willner Co, Hong-Kong
FERROUS SULFATE—908 bgs, C Itoht & Co, Kobe
FISHLIVER OIL—29 dms, H V Nootbaar & Co, Yokohama
25 dms, Interocean Chemical & Minerals Corp, Yokohama
75 dms, Universal Foreign Service, Yokohama
GLUE—70 bgs, Myers Sales Co, Aarhus
GUAR GUM—600 bgs, Hathaway Allied Products, Genoa
PALM OIL—259 tons, Vegetable Oil Products Co, Belawan Deli
PEPPER, WHITE—35 bgs, Singanore
SEEDLAC—200 bgs, East Asiatic Co, Bangkok
THIOUREA—400 bgs, International Chemical Corp, Yokohama
TITANIUM PASTE—25 cs, Yokohama

## Philadelphia

ANTIMONY—50 cs, Indussa Corp, Antwerp
90 cs, Liverpool
ASBESTOS FIBER—500 bgs, N American Asbestos Corp, Lourenco Marques
300 bgs, Central Asbestos Co, Port Elizabeth
1,000 bgs, Lourenco Marques
BONE—160 tons, Ossa Products, Buenos Aires
CALCIUM CARBONATE — 1,600 bgs, Whittaker Daniels, Liverpool
6,000 bgs, Antwerp
CASEIN—600 bgs, National Casein Sales, Buenos Aires
1,500 bgs, Righner Porteus & Co, Buenos Aires
660 bgs, National Casein Sales, Rotterdam
1,000 bgs, Bordeaux
CHESTNUT EXTRACT—1,400 bgs, Chase Manhattan Bank, Naples
CORN STARCH—224 bgs, Rotterdam
CRYOLITE—2,150 tons, Pennsalt Corp, Ivigtut
DYES, COALTAR—20 dms, Hamburg
FUEL OIL—126,118 bbls, Hess Inc, Puerto La Cruz
163,311 bbls, Sinclair Refining Oil Co, Aruba Cruz
139,479 bbls, Cities Service Oil Co, Aruba
HORNMEAL—525 bgs, Santos
LICORICE ROOT—10,307 bls, Mac Andrews & Forbes, Bassah
12,699 bls, Bushire
LOCUST BEAN GUM—75 bgs, Rotterdam
MAGNESITE—929 tons, Split
MANGROVE EXTRACT—360 bgs, Saxe Cutch Corp, Sagayan
MELAMINE—150 bgs, Yokohama
NAPHTHALENE—1,065 bgs, Rijeka
3,837 bgs, Rotterdam
NIGER SEED—215 bgs, Massawa
PETROLEUM, CRUDE—266,259 bbls, Gulf Oil Corp, Maracaibo
129,395 bbls, Gulf Oil Corp, Bachaquero
119,295 bls, Atlantic Refining Co, Punta de Palmas
117,856 bbls, Atlantic Refining Co, La Salina
168,090 bbls, Texaco Co, Punta de Palmas
296,326 bbls, Texaco Co, Sidon
169,235 bbls, Texaco Co, Puerto La Cruz
POLLACKLIVER OIL—125 dms, Yokohama
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